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ABSTRACT

This 45-paper anthology presents an overall picture of 1973-1983 writings in Roundtable Reports, the quarterly journal of Museum Education Roundtable. Thirty-five of the articles appeared in previous Roundtable Reports, while some are new articles that reflect on original articles to provide context and historical perspective. Papers are grouped around seven themes: priming the muse (dealing with the philosophical bases of museum education); a distinctive brand of education; audiences as clients; teaching objects; toward building a profession; and first questions. A complete index to Roundtable Reports is included, organized by author, institution, volume, and subject. Specific topics discussed include children, curiosity, and museums; learning, play, and fantasy; interpretation from the non-educator's point of view; imagination in teaching; identifying client needs; the adult tour dilemma; constructing a cultural context through museum storytelling; the museum docent; the museum and the visitor experience; evaluating docents; and the roles of attention and curiosity in museum learning. (LMM)

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PERSPECTIVES ON INFORMAL LEARNING
A DECADE OF *ROUNDTABLE REPORTS*

SUSAN K. NICHOLS, EDITOR
MARY ALEXANDER AND KEN YELLIS,
ASSOCIATE EDITORS

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THE PREFACE

It's a long title—*Museum Education Anthology: Perspectives on Informal Learning, A Decade of Roundtable Reports*. But then it's been a long time in coming!

Since 1979, members of the Editorial Committee of the Museum Education Roundtable have wished aloud occasionally that they could pull together, in a single issue, selected articles from past *Roundtable Reports*. Perhaps that issue could include out-of-print and often-requested articles. Or maybe it might serve double duty as a means of self-documentation of MER and the Editorial Committee. As conversation became expansive, the editors embellished their pipe dream. As a service to their colleagues—and a convenience to themselves—they would compile an index of past *Roundtables*. Each time the topics were introduced, the editors agreed eagerly that either effort would indeed be a worthy undertaking. Likewise however, each time these intentions were raised further discussion was tabled until "after the next issue is in the mail."

That omnipresent "next issue" delayed the editors' dream until April 1983 when *Roundtable Reports* completed its first full decade of publication. In 1981, MER itself had celebrated its tenth anniversary. Perhaps these benchmark dates were the requisite catalysts. Mary Alexander, the first editor of *Roundtable Reports*, Ken Yellis, a long-time editor and the current editor-in-chief, and I, also a senior member of the Editorial Committee, were appointed to consider the alternatives and come up with a plan.

Our early conversations suggested that the selected articles could be a special issue of the quarterly journal. The index too could be a separate issue of *Roundtable Reports*, or sections could be included in scheduled issues. An initial culling of articles for inclusion led us to muse that a small book might be the final product. The size grew again when we decided that a handful of the original authors would be asked to write updates or to set their writing in context. Now that idle conversation about a special issue of a few reprints from *Roundtable Reports* had grown to an anthology with some new writing, the three of us agreed that the complete index would be a natural appendix to the publication.

Needless to say, the final proposal which we submitted to the MER Board of Directors described an ambitious project, one which would demand time and money, two scarce resources for an all-volunteer organization. After prudent considerations, the Board with cautious enthusiasm approved the proposal for an anthology of an estimated 250 pages, and agreed to lend its full support.

That historical synopsis recounts how the *Museum Education Anthology* came about, but what about its contents? Does a re-reading of articles since 1973 reveal progress in better understanding our professional aims, our audiences, our training, our programs and practices? What have we cared enough about to write about?

Articles about curiosity open and close this anthology of pieces written by individuals who are or who work closely with museum educators, men and women who are curious about themselves, their work and their world. Sandwiched between are provocative accounts about teaching techniques using real stuff, introspective glances at ourselves and our field, reports of program successes and near successes, evaluative studies, and reviews of exhibitions and literature directly or indirectly related to learning from objects. The articles were selected for their range of topics and good writing and for the overall picture they present of a decade of *Roundtable Reports*.

Some have questioned why do an anthology? In addition to the practical considerations mentioned earlier, two of our "new writing" contributors articulate the less tangible reasons. Richard Grove, an early member of the Museum Education Roundtable, writes: "As one who read these articles as they came out . . . over the years, I was pleased on reading them again to find out how well they have stood up." And Elaine Heumann Gurian, in commenting on her thoughts presented in 1976, notes: "I continue to be grateful to be in a profession that encourages the energy, idealism, and enthusiasm evidenced in the original article. I believe firmly in the things I said, but age would have blunted the passion. Thank you for reminding me that the 'juices' still flow."

The timelessness and invigorating spirit of the articles in this anthology made the enormity of our undertaking less onerous, altered the task to a kind of pilgrimage in fact. As museum educators, we encourage our audiences to consider their present condition in light of the past. Let's take advantage of our own good counsel.

Susan K. Nichols, Editor
June 1984

THE ACKNOWLEDGEMENTS

This anthology is the result of a large and amiable collaborative effort, much like Museum Education Roundtable itself, the organization which spawned *Roundtable Reports* in 1973. These thank yous may sound a bit stiff. Please read them in the context of affectionate hugs and warm, heartfelt appreciation for a major undertaking well done by individuals who cared enough to spend time to bring this book to fruition.

The MER Board of Directors focused on financing and marketing concerns giving us the time and freedom to more fully concentrate on the production. Our appreciation to MER Board Chairman Elizabeth M. Sharpe and Board members Emily H. Eig, Zora M. Felton, Suzanne Herlitz, Gretchen Jennings, Caryl Marsh, Betty G. Mooney, Lee Oestreicher, and Kenneth C. Turino. Other indispensable MER members are Carole Bottiglione, Linda Currie, Elizabeth Eder, Alan Gartenhaus and Howard Morrison. Ellen Cochran Hicks, Editor of Publications for the American Association of Museums, provided enthusiasm for the project and confidence of the need for such an anthology. And our deep appreciation to the score of colleagues who pitched in with the proofreading.

A significant component of this anthology is its complete index to *Roundtable Reports*. Good intentions to accomplish this herculean effort had stumbled until Karen Sugerman agreed to take charge. Her team players in this not-so-trivial pursuit include Sherri Kohr, Ruth Ann O'Connell and Heather Paisley-Jones.

Again much like Museum Education Roundtable, the collaboration to produce this *Museum Education Anthology* reached wider than metropolitan Washington, D.C. We are grateful for the generous time given by Ann Bay, Marcella Brenner, Warren Leon, Edeen Martin, Bonnie Pitman-Gelles, Joan Seidl, Robert Sullivan, and Susan Page Tillett. Early in our thinking about the project, these eight colleagues read and commented on our initial selections of potential candidates for the publication, making thoughtful suggestions which we took to heart.

We are perhaps most grateful to readers and contributors of *Roundtable Reports* over the past decade. Your writing and suggestions for other topics to be covered have produced the copy that yielded this volume.

Susan Nichols, Editor
Mary Alexander and Ken Yellis, Associate Editors

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Richard Grove is retired and lives in the other Washington—Seattle, Washington specifically. Before his retirement, he was Director of the University of Washington's Henry Art Gallery. Prior to moving to the west coast, Dick worked in Washington, D.C., first as a Museum Education Specialist for the now defunct U.S. Office of Health, Education and Welfare. Following a stint as Associate Director of the Arts and Education Program of The JDR 3rd Fund, Inc., he served as Assistant Secretary for History and Art at the Smithsonian Institution, the position he held as the Museum Education Roundtable was being formed.

Elaine Heumann Gurian is Director of the Exhibit Center at the Children's Museum in Boston, Massachusetts. Her special area of expertise is the development of interactive exhibitions. Elaine has ably represented the interests and concerns of museum educators on the Council of the American Association of Museums and the Committee for Education and Cultural Action of the International Council of Museums.

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FROM A UNIQUE PERSPECTIVE

Richard Grove

Most of the pages that follow were written by and for museum educators, but we hope that this fact will not put off those readers who have a more general interest in how learning takes place. Museum educators have a unique perspective that has enabled them to gain insights and make discoveries that merit a wider readership than is usually accorded this special genre of educational literature. Not that these hypothetical readers get the opportunity too often. The literature directly related to museum education and of more or less immediate use to its practitioners—let alone others—has remained a relatively scarce commodity. You could store it all in your garage and still have room for ten years of the *National Geographic* and maybe a power mower. (You couldn't cram the literature of general education into all the garages in Bethesda, Maryland, although this might be the best thing to do with the stuff.) Therefore, the contributions of the Museum Education Roundtable are this small, cooperative organization's finest achievement, and *Roundtable Reports* its most visible. Its members may justifiably take five minutes off to celebrate. To remain satisfied with the state of their art longer than that is not in their tradition.

The pieces in this first section all deal, in one way or another, with the philosophical underpinnings of museum education. Read on with this caveat: do not look for a tidy consensus. There is no dogma and there are more than a few contradictions. Museums are strongholds of individualism in a world where institutions commonly suffer a creeping sameness. Too, the differences among art, history, and science museums are substantial, and between large and small museums. Yet there was from the start an easy and productive discourse around the Roundtable. This is not a small matter: museum educators have more in common than not and it is this that allows them to lay claim to a distinctive brand of education, one with its own style and sense of purpose, one with its own philosophy.

As one who read these articles as they came out in *Roundtable Reports* over the years, I was pleased on reading them again to find how well they have stood up. The writers use no superfluous words, sounding as if they had no time to waste—which is doubtless true. They do not strike poses and they do not seek to impress anyone. Again and again the exchange becomes sharp and deep, getting close to the core of museum education.

Of the educational potency of museums there is no doubt whatsoever. Museums have the power to quicken the mind and make it work in new ways, to exalt the spirit, to open avenues of perception and discovery. Museum educators work within the unique possibilities of museums, possibilities that are not fully understood and may never be. If there remain unanswered questions in the air, a certain tinge of mystery, then that may be in the nature of museums and of all informal education. That mystery, and that huge potential, has daunted none of our writers. It is what attracted them in the first place.

CHILDREN, CURIOSITY AND MUSEUMS

Bruno Bettelheim, *Psychologist, educator and author, Portola Valley, California*

Trying to sort out my thoughts on curiosity, children and museums, I began by recollecting what museums had meant to me when I was a child and then thought about what continues to make them so attractive to me, an inveterate visitor of museums for some 70 years. Naturally, I had liked some museums much more than others. Some had greatly enriched my life; others had been stimulating, or at least informative. Some museums had seemed full of wonders; others had offered a chance to enjoy delightful objects. Still others had taught me that some of my preconceptions were way off the mark.

Since I had gone to great lengths to familiarize myself with the museums of the West and also some of the East, and never stopped enjoying them, I wondered why I was having such a hard time arriving at conclusions about them.

Eventually I realized what should have been obvious from the start: it is problematic to think about museums in a general way, while it will not do at all to generalize about curiosity—or children. Many years of working with children have impressed upon me how greatly they differ, so much so that what is true for one child is entirely untrue for another; what arouses and holds the curiosity of one child barely interests another and even the most skillful efforts at stimulating his curiosity will lead to no more than a passing interest.

The same diversity applies to museums. While each has something to offer to some people, what they offer is neither the same, nor of interest or value to all. Certainly, too, every museum has something to teach, but I am not at all certain that the essential purpose of museums is to teach what many of them do try to teach. And as far as the curiosity of children is concerned, we ought to be very careful. The school is society's main institution for teaching children and it is an old and venerable one. Schools are supposed to both arouse and satisfy a child's curiosity. But in most cases what they do is to kill his curiosity. Is there any reason to assume that when museums teach children the results are much different? Might it not be presumptuous to assume that mastery of the art of teaching on the part of museums is so much greater than that of schools that their educational efforts will not suffer from similar shortcomings?

Most people go to museums for quite mixed reasons, of which they are by no means conscious. They seek interesting and enjoyable entertainment which is at the same time instructive, but also something that might be likened to a semi-religious experience. Not without reasons do most people visit museums on Sunday.

The traditional spirit of Sunday is not totally absent from the atmosphere one hopes to find in a museum. As people expect a preacher to uplift them by showing them something bigger than what fills their everyday concerns—something more lasting, if not eternal—they expect museums to do the same, albeit in a very different manner. Most visitors to museums wish to find there something that transcends the narrower confines within which the rest of their lives unfold. A building that was or looks like a royal palace, or reminds them of a temple, serves well to create the mood they seek.

Maybe, then, this is what museums are here for: to give us a chance to marvel, an experience we very much need because everyday life deprives us of the miracles a religious age saw everywhere. And if so, the museum's task might be to make people much more ready to wonder and to marvel, so that their ability to experience wonder will not be restricted to so few objects and so few occasions. Maybe too much explanation of these marvels reduces them to more or less everyday experiences.

Robert Herrick reminded us that "Thou prizest things that are curious and unfamiliar." Children in particular have a strong tendency to take the familiar for granted. It takes quite some sophistication to marvel at what we are most familiar with. Maybe children—maybe all of us—need museums most in order to learn to marvel or not to forget to marvel. Because as we marvel at these wondrous objects—natural objects, pieces of machinery, works of art—we eventually begin to marvel at man, at what we are. The awe we feel for these marvelous creations of nature and of man's talent and ingenuity eventually extends back to ourselves. And this is an experience which I believe children very much need.

A recent study showed that only three percent of regular visitors to art museums credit school trips with stimulating their interest, while 60 percent attribute their interest to the fact that someone in their family took them to art museums when they were children. Seventy-seven percent had been influenced by a combination of family, friends or teachers who instilled this interest in them. Thus what accounts for lifelong interest in museum-going is sustained personal influences—not the relatively light sprinkling of interest which seems all that art education programs can provide.

This certainly was true in my case. It was my mother who had taken me to museums and whose delight in what was to be found there impressed me so much that I set out to discover their pleasures for myself. Later this interest was reinforced by friends. But it became a lifelong avocation only when my interest grew beyond the seeds they had planted.

I believe I never tired of my visits to the Museum of the History of Art, and never found them disappointing, because I was never guided as to how to look at works of art, told what to see in them or had their intrinsic meaning explained to me. Nor was I instructed on how to appreciate them, or on how the work that had captivated me related to the artist's life and his times. Without being given any direction, I simply wandered around, picked out for contemplation what was in line with my mood of the day and my preoccupations of the moment, as I had seen my mother do. Not being told what was important to see in what I was looking at, on different days I saw quite different things in it. This aroused my curiosity and made the particular art work all the more interesting, much more than it would have been had I seen in it each time only those things which had been pointed out to me as important. . . .

Without knowing it, at that time in my life I was trying with great insecurity to form my own judgments about things important to me. If somebody in authority had asked me to appreciate art as he thought I should, I would not have been made more secure in my appreciation of art—and the experience of looking at art would have lost most of its meaning for me. If a guide had asked me to sit or stand in front of what he or anybody else considered a masterpiece, but which all by itself failed to touch a responsive chord in me, I would have closed my mind to that work of art, and probably also my eyes, so that I would not have to agree with what was not then in line with my deeper feelings.

Many years later I discovered that a great philosopher could have been my mentor. Schopenhauer wrote: "You must treat a work of art like a great man: stand before it and wait patiently till it deigns to speak." This is what I did. I decided all on my own whom I considered, often for very spurious reasons, a great man, and then I waited until his work spoke to me. If anybody then had told me who the great men were for whose message I had to wait patiently and assiduously, I would have closed my mind in resentment and the work would have failed to touch me.

If one thinks that it might have helped had I had a chance to try my hand at drawing and painting, I can refute the idea since I was taught drawing and painting for several years. It demonstrated to me only the abyss which separated my own efforts from what I admired in the museum. Having learned the technique of etching does not open up any avenues to a meaningful understanding of Rembrandt. It stresses the accidental and ephemeral to the neglect of the essential.

This, then, I believe to be the museum's greatest value to the child, irrespective of what a museum's content may be: to stimulate his imagination, to arouse his curiosity so that he wishes to penetrate ever more deeply the meaning of what he is exposed to in the museum, to give him a chance to admire in his own good time things which are beyond his ken, and, most important of all, to give him a feeling of awe for the wonders of the world. Because a world that is not full of wonders is one hardly worth the effort of growing up in.

This article, which appeared in Roundtable Reports, *V. 5, No. 2, 1980 is reprinted with permission of Bruno Bettelheim and the Office of Museum Programs, Smithsonian Institution, Washington, DC. The complete version appeared in* Children Today, *January/February 1980, edited by Judith Reed. Bettelheim presented these thoughts at a symposium, "Children in Museums," organized by the Smithsonian Institution, October 1979. He continues to visit museums.*

LEARNING, PLAY AND FANTASY

An Interview with Elaine Gurian, *Director, Visitors Center, Children's Museum, Boston, Massachusetts*

Judy Herman *and* Barbara Fertig, *Editors, Roundtable Reports*

Q: How do you know, or how do you determine, if what you are doing in a children's museum is successful? How do you know if an exhibit works? How do you get feedback?

EG: It depends upon what kind of information you're after. I'm very skeptical of the kind of testing which would reaffirm—or contradict—my philosophical premises. My own philosophy is based upon my experience with my own children, and is sufficiently idiosyncratic that it makes me uncomfortable to postulate it as a philosophy. On the other hand, I'm so convinced of it that, in fact, it is the philosophical underpinning of everything I do.

Q: Do you find that you keep going back to that philosophy as you work?

EG: Yes, and it has grown. It is very different now than if you had interviewed me a year ago. The new part has to do with that whole part of childhood that I remember from my own childhood, and that I see in my daughter: fantasy. Simultaneously with my own growth in that area, Bettelheim's book has come out (Bettelheim 1976). I feel better that someone else has written a book about something that I've been thinking about. At the recent AAM meeting in Boston, I thought that Bernie Zubrowski's paper on the role of play was very important. Even thought I have worked with Bernie all these years, I have never heard his philosophy, and I felt myself growing as I listened to him, and I find myself incorporating his ideas into my own philosophy. Bernie is saying that play, as an enterprise in itself, has to be looked at as a very serious business. I don't know where fantasy fits into this; I don't know whether it's a third or not, but what Bernie is saying is: let's just look. Let's look as a scientist would observe, without trying to make a this or a that out of it.

Now there are these sorts of things . . . Michael (Spock) calls them landmark experiences. You only have to have gone to the circus once in your life. Every other circus you go to is redundant. There are things you remember from your childhood as being single experiences, pivotal experiences, and that's what the museum is about. You only have to have seen the dinosaur once. Every other time you see the dinosaur is a reconfirmation of that first experience. I am very leery about the pre- and post-testing because I don't think pre- and post-testing are about the museum's business. I think the museum's business is banking, and single mythological experiences.

The third part of learning has to do with apprenticing. It has to do with focusing on a person . . . a person who is so powerful and so dynamic in your life that it made a difference—forced you to change your way of thinking. You loved him so . . . or you feared him so . . . or you found him so exciting that what he stood for became a possibility in your life. I think that these are the three central areas of activity in learning: the teacher, the landmark experience, and the apprenticeship.

Q: Let's return to the first area, the teacher: the instrument that keeps kids going, giving them that next step.

EG: That could be the parent, too. Parents have that option every day.

Q: But isn't it a function of the museum person to do the same thing? For instance, to look at what children are doing in an exhibit, and say that now the child needs to know.

EG: Well, they have a very difficult position compared to the teacher or the parent, which is that they're spitting in the wind. They don't know if they're right or not, because they're never going to see this kid again. They make an instantaneous decision which they hope is right, but never get the gratification of knowing that it is right.

Q: But when you plan your exhibits, or when you put a children's museum together, don't you plan particular experiences that will generate that "Aha!" reaction?

EG: Yes, I hope that they will, but I don't know if they will and I refuse to do testing because I don't think that it's time-related. And that's the real difference between the behaviorists and me. The behaviorists will organize the exhibit so that they can post-test for immediate learning.

Q: But is there also a great difference between you and someone like Piaget who can sit and document things by observation?

EG: No, but now there's a special way you run the exhibit, and that is that the exhibit has to be a smorgasbord. It's got to have a lot, so that the child who fantasizes can get what he wants out of it, and the pragmatic child can get what he wants out of it. You cannot orchestrate that. You have to have provided this panoply of possibilities, a vast array of possible entries and exits from your exhibit. As an administrator I believe, and I really believe this strongly, that all ideas are good.

Q: Are your philosophies built into the exhibits?

EG: Well, yes and no. In this interview, I should be represented as having my own private thoughts. There's nothing about my thinking, even though I make decisions that affect the whole museum, that I would be willing to generalize as a statement of national importance. Let me tell you about my philosophic underpinnings. I watch my children in a number of settings, including the Children's Museum. I take them everywhere with me. A lot of what I think comes out of traveling with them on a Smithsonian grant. In fourteen days we visited sixteen museums, and every night we taped our reactions. And this is what I think about museums.

I think that there are a lot of different kinds of learning, but I have broken them down into three categories. There is a kind of learning that happens in day-to-day increments with the teacher as moderator—whoever the teacher is—where you say to the child "the next piece of information you need is such and such." "You're doing the times tables, and you didn't get it today, but tomorrow I know what we can do to make it clearer." That is the teacher's role, and not the museum's. There is feedback in that role, and with it you orchestrate the kid's learning every day. The museum's role is very different, but equally important. It's a landmark experience role. I think that it's essentially a banking role. Children do two things in the museum setting if the museum experience is done right: they take immediately the piece of experience that they are ready for next, and they do a kind of "Aha!" "Oh, yes, that's such-and-such. We talked about that last week, and there it is." And then they do a whole lot of subliminal banking, of storing the experience. It's really like a safe deposit box. They don't know why they store it . . . they don't know that they store it.

Q: But they only store it if they're ready to store it?

EG: Well, no. They just store it. The stuff they're ready for they do right away for you . . . "I know what that is, that's a . . ." When I was in the car with my own children for fourteen days, and we saw all these museums, what they were doing was making all these connections. They would see something in a museum, and they would say, "Remember two weeks ago?"—or twelve months ago or four years ago—"when we saw the such and such? Well, that thing is the same." They had never brought to mind the twelve months ago or four years ago, they just had it hanging out there. Filed. And all of a sudden they could put it together. The museum's responsibility is that kind of banking.

Q: But do all these possibilities have to be participatory, if they are for children?

EG: No. Every modality has within it an educational possibility. I think it's a tragedy that we tout one modality over another. The glass case exhibit has certain things, the improvisational theater has certain things. But the people who say that the improvisational theater method is the way to do, or the hands-on method is the way to do, are making a great mistake.

Q: Is there any point, then, in trying to document how kids learn in the museum?

EG: As long as in organizing an instrument to document you don't prejudge the exhibit. I'm very worried about that. We have done a questionnaire that asks how old is your child and what was his favorite and his least favorite exhibit. And as long as every one of our exhibits had at least one person who liked it best we thought we were all right. We would worry about an exhibit that no one chose.

Q: Would you throw it out?

EG: I would be very concerned, but I would have to be fairly certain that it did not reach somebody before I threw it out. Any neat idea for an exhibit is just as good as any other neat idea. Anything that turns my staff on is going to turn someone else on. I really have to listen to the ideas coming in, and I really have to have on my staff a representative of the fantasy life of children, and a representative of the pragmatic type of child, and of the child who has to touch, and of the aesthete. I'm worried that people come to us and misapprehend us. They see one of our modes and they say "Aha . . . *that's* what they do there." It happens all the time. They come with their notebooks, and they say, "Oh, I see that what you are doing is ____________. Now, I'm going to go home and I'm going to do that."

I guess what I'm talking about is balance. Don't throw anything out; there is no single answer. Piaget talks about learning, and Bernie talks about play; and Bettelheim talks about fantasy. And those three things are all equally important. It's very important that nobody give up any of them.

Maybe we have to listen to the psychiatrists who say that people are multideterminist. Maybe there is no one answer for how a child learns, or one answer for what is important for them to do. Maybe everybody had better stick to whatever they do well, because it's all important.

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This interview appeared in Roundtable Reports *(Summer) 1976. Today Judy Herman works on special programs for The Franklin Science Center, Philadelphia, PA. Barbara Fertig is at work on a doctorate in American folklife studies. Elaine Heumann Gurian continues as Director of the Exhibit Center at the Children's Museum in Boston.*

AN AFTERWARD, 1984

Elaine Heumann Gurian

The most striking difference between the original article and my current thinking is the age of my children and the effect that has had on me. My children are older and they have broadened their learning styles so that the "dreamer" is more disciplined and the "apprentice" is more playful. I am glad to be reminded of the more single-minded methods of their early learning and to remember to accommodate them in my work. But I am now more convinced than ever of the pluralistic manner of learning we all use: fearful, concrete, fantasy, experiential. We change our methods of learning because of our moods, our interest/disinterest in the subject, and the company we keep.

I still believe strongly that it is our responsibility as museum people to provide as many opportunities and strategies for people to explore a subject as possible. All learning possibilities will allow some portion of your audience to move to the next step. That suggests different levels of labeling, interactive and non-interactive elements, audio-visual apparatus, human interpretation, computer information and printed resources all appearing in the same place at the same time. It also implies resources available for off-site or more in-depth learning available within the same complex. How can we provide for all our audience, young and old, novice and experts, readers and "doers" at the same time and not produce a visual jumble?

How can we allow every visitor to take what he wants and not feel obligated to take more? How can we make visitors feel proud of their choices and not self-castigating? This suggests future design considerations, observations, tryouts and evaluations that are still exciting to me.

I have a renewed interest in humor as an exhibit element. I think we might finally agree that we can learn while we play. Can we agree that we can learn while we laugh? There is a reason we tell jokes to each other. Can we tell jokes to our audience? Can we install serious collections with appropriate light-heartedness and not distort but rather enhance the message?

Because my children are older I am concerned with the older child, the eight- to twelve-year-old. Why are they so tense? Can we make it safe for a segment of our population to be enthusiastic and involved rather than superficially sophisticated and afraid to try? Can we get these kids to "hack around" again? If we can then we must be ready to start where they are and bring subject matter and style that appeals to them into our institutions. I think it means that we will have to examine what they want, not what we think is good for them. We told them to "grow up and stop acting so silly" and they did. Are we prepared to say "start acting silly and don't grow up so fast?" I'd like to try out programs that do that and "bring back goofy" into their lives.

Finally, I continue to be grateful to be in a profession that encourages the energy, idealism, and enthusiasm evidenced in the original article. I believe firmly in the things I said, but age would have blunted the passion. Thank you for reminding me that the "juices" still flow.

QUEER QUESTIONS: A BOOK REVIEW

***The Message in the Bottle*, Walker Percy, Farrar, Straus, and Giroux, New York. 1975. 335 pp.**

Dennis A. O'Toole, *Curator of Education, National Portrait Gallery, Washington, D.C.*

"Why does man feel so sad in the twentieth century?"

"Why is a man apt to feel bad in a good environment, say suburban Short Hills, New Jersey, on an ordinary Wednesday afternoon? Why is the same man apt to feel good in a very bad environment, say an old hotel on Key Largo during a hurricane?"

"Why is it difficult to see a painting in a museum but not if someone should take you by the hand and say, 'I have something to show you in my house,' and lead you through a passageway and upstairs into the attic and there show the painting to you?"

Queer questions, these. An odd combination. But unsettling questions, questions which become more haunting the more one ponders them. They are Walker Percy's questions, put to us at the beginning of his book *The Message in the Bottle: How Queer Man Is, How Queer Language Is, and What One Has to Do with the Other*. They are the same questions that inform Percy's fiction. In this collection of essays, however, we have Percy, the amateur linguist and student of man, asking his questions explicitly and answering them in ways that have great significance for the person interested in education and objects.

Percy believes that the usual condition of one living in modern technical society is alienation—estrangement from things, from oneself, from others. We have somehow lost our sovereignty, he says, having surrendered the power to know ourselves and the world to the planners and experts, the "packagers." The way back to sanity, Percy believes, is for each of us to lay hold of the world—our own worlds—for ourselves. And that means experiencing what goes on within and without us *in our own terms* and not in terms concocted by the advertisers, artists, and academicians whose terms infest our language and hence our humanity.

Percy, of course, is hardly the first to make this diagnosis of the malady which afflicts our times. But his insistence that language, the relationships between things, people, and symbols, is central to our predicament is a forceful if complex notion which puts museum education, among other things, in a new and challenging perspective. Museums are the keepers and displayers of things. What are the natures of these different sorts of objects, Percy asks us, and are people really able to see them and come to terms with them for themselves in our museums?

The author is pessimistic: "The measures which the museum curator takes to present the thing to the public are self-liquidating. The upshot of the curator's efforts is not that everyone can see the exhibit but that no one can see it." For in displaying objects, by putting them in cases and labeling them, the curator makes them his and not the visitors'. "Does this mean that we should get rid of museums? No, but it means that the sightseer should be prepared to enter into a struggle to recover a sight from a museum."

It is a struggle, I would add, that is the museum educator's role to help lead. I know of no better preparation for that battle, no better means of sharpening and deepening one's understanding of what it means to teach with and learn from objects, than to read *The Message in the Bottle*. It suggests that our museums and our work are more central, more crucial to people's well-being than we in the profession had allowed ourselves to suppose in even our wildest imaginings. For Walker Percy is telling us that we, in our sprawling art museums, quiet nature centers, and newly restored historic sites, have the opportunity to give things back to people and, hence, people back to themselves.

This book review appeared in Roundtable Reports *(Summer) 1977. Dennis A. O'Toole is Vice President for Historic Area Programs and Operations at Colonial Williamsburg, Virginia.*

INTERPRETATION FROM THE NON-EDUCATOR'S POINT OF VIEW

A Transcription of a Panel Discussion

Panelists were* Carl Scheele, *Curator, Division of Community Life, National Museum of History and Technology;* Bob Widder, *Chief, Design Unit, National Air and Space Museum; and* Richard Randall, *Director, Walters Art Gallery, Baltimore, Maryland.* Jane Glaser, *Office of Museum Programs, Smithsonian Institution, moderated the panel which was held on February 16, 1978.

Jane Glaser introduces the subject

Many of us in the museum field who have specializations tend to talk to each other and don't often talk to others in the field who perhaps have a different body of knowledge but share the same goals and objectives. The communications sometimes break down and there often is a lack of understanding—sometimes rightfully so, but more often than not wrong. I have found that, in working with museum educators in the last few years, their zeal to be recognized as museum professionals often leads them to isolate themselves from the rest of the museum world. That's changing, perhaps.

To discuss the topic of "Interpretation from the Non-Educator's Point of View," we have brought together a designer, a curator and a director.

Carl Scheele begins

I'll speak from my point of view as a curator in the Museum of History and Technology, which is the only museum I'm intimately familiar with. . . . Collections were originally and primarily formed for research purposes. Research, classification, and conservation have remained a central responsibility here, and, because of this (I assume with good reason), the curator-scientist-historian has retained the primary responsibility for not only the care but the use of objects in our collections. . . .

In developing exhibits, our curators are the primary people who create; they determine the content, and the thrust, and govern the selection of artifacts and other elements in the displays. . . . The house rule is that the objects are not to be smothered by the design. Designers and staff members from our office of education do not, however, determine the theme of an exhibit, the object content, or the purpose of the exhibit. The curatorial staff, which includes the director's office, determines those matters. The curators and their staff prepare the labels and copy for the exhibit, the catalogues (for the most part), and other supplementary materials associated with the exhibitions. . . . Curators are charged legally and subjectively with the custody and use of objects in our collections. Curators hold the initiative for using these objects, for example, in proposing exhibits. Proposals are reviewed by an exhibits committee which includes three curators, one conservator, the chief of our design department, and a representative from the education office. The membership is rotated, as is the chairmanship. The committee reviews rough proposals, highly developed exhibit outlines and accompanying object lists, suggestions for catalogues or associated publications, the purpose or theme of the exhibit, and problems of scheduling and siting the exhibit within our building. We can recommend on any aspect of a proposal. We generally review the finished script before production is undertaken. . . .

As subject matter experts, however, the curators are regarded as educators, who have several areas of basic responsibility. They are researchers, writers, planners, and lecturers, all at the same time. Curators are held accountable for the accuracy of information disseminated to the public in whatever form that takes. They are not totally isolated from the public, therefore, although some of us may have strong tendencies to become hermits.

There is, as a rule, good cooperation between the collections staff and the education staff; curators make available exhibit scripts, brochures, publications, slides or picture packets, and actual objects drawn from the reserve collections for the use of the education staff in developing programs around the exhibits. We work together to ensure accuracy and, if required, the sequence of presentation. Normally, there is an open and free interaction among curators, specialists, technicians, and educators in the development of educational programs. I suppose that the education staff feels itself at some disadvantage here in essentially responding to someone else's product, but also think it is one of those givens—in a structure that places the entire burden of object responsibility squarely on the curator's shoulders. This is not likely to change, as long as curators must control the use of objects for the many purposes which often do not relate to the exhibits program. . . .

Bob Widder for the designers

Whenever I start an exhibit with a new curator, first I have to convince the curator that I'm on his side. I don't want to make just a pretty exhibit that means nothing; I want to make the exhibit as meaningful as possible, and I want to protect the objects, and I want to make them clearly visible to the people who want to see them. That's the curator's aim, also, but it's my particular part of the teamwork to do that—the visual part of the plan. The other thing that I try to make the curator realize is that whatever we do in an exhibit is an editorial statement. If we put two objects together we are saying something very subtly about those two objects; if we place them on opposite sides of the room we are saying something else. . . .

If you could just realize that if you put something into an exhibit, it is there and it has to have something to say. I often talk about the three unnecessary evils of an exhibits design. The one is the pedestal, the frame, the platform, the case—whatever you have to use to show the object well. The things are in the exhibit, from my viewpoint, for people to study. For instance, if you put things too close together and mass them and they're all at the same level, people who come through don't know what to look at. An example of that is *We the People* at MHT: they're marvelous things, but we will see an endless wall, say ten feet wide, of a certain type of thing. Three-dimensional, but there are so many of them you don't know what to look at.

Now if one were taken forward and the curator would subtly say this one shows you what I'm talking about, the rest of 'em are there to show you the bulk and the variations. Look at this one, then go on and look at something else and get the view of the rest without studying them very closely. I think people would learn more from the exhibit and be able to go through it faster and see more of the things. After all, we have people on tours who have twenty minutes in the entire building; now what does that leave for *We the People*?

The second unnecessary evil is the protective device, whatever is used to protect the object from light, people, heat, water, vapor. Those things are completely unnecessary, but almost half of our budget goes into those kinds of protective devices.

The third unnecessary evil—and when I say it the curators go white—is the label. Grace Cooper, one of my favorite curators, who was head of textiles at the Museum of History and Technology, delighted me once by saying: "I'd love to do an exhibit with no labels, but here I've kept them as short as possible. I think the objects speak for themselves." We did a beautiful exhibit.

Richard Randall for directors

Outside of New York and Washington, museums are different. They are somewhat simpler. A midwestern director put it correctly when he said that if the director is not the head of his curatorial staff, is not the head of his education department, is not the head of his display department, then he's no damn good. Essentially, the buck has to stop somewhere, and to make these things work, whoever is running the show has to see that they do work together. One of the great complaints that most directors have is that their education department and their curatorial department don't talk to each other enough, or sometimes not at all. It's hard to figure out why this is; neither class of people is demons, and they have a very good reason to be close together.

The curatorial staff and the educator should be working toward the same thing. I don't know how one does this, but my staff has invented (and it sounds crazy) a once-a-month tea party to get together in a relaxed atmosphere and talk to each other about things they're all afraid to go and talk to each other about in the office. Now, if you really want to know how the elbow cup on a suit of armor works, you hesitate to call up the curator of arms and armor and make an appointment to go to his office and say, "George, how does the elbow cup work? I want to be able to explain it to the kids." You don't do it. But, if you can see George another time, you can say, "How does it work? How does he turn his arm this way?" Well, it's very important to know the answer, about sliding rivets and all that kind of stuff.

There's this tremendous division. I've worked at the Metropolitan, in the Boston Museum, and the Walters Art Gallery (at present) and I find there is always this division. The educators come to me and complain that the curators don't tell them enough, and the curators complain that the educators are lying in the gallery, making up stories—which is terrific fun, a good educational device. We have a boy on our educational staff who's realized that American public school children know nothing about religious art of the middle ages—a subject he's interested in. We have a huge Flemish altar piece with complicated scenes and he'll say, "What does this scene represent?" Usually the kids don't know. Let's say that it's the deposition from the cross. So he'll say, "Let's make up a story." They make up a wonderful story about how somebody was killed by a dragon and they're taking his body and burying it. It really doesn't make *any* difference whether they know it's the deposition from the cross, if they are *looking*.

The team, especially the educator, must also pay attention to the intelligence, looking span and comprehension span of different groups of people. I've never heard of anybody who really put any thought into the fact that children see instantly, much more quickly than adults, because they don't have all this bunk in their heads and they don't have to fit things in.

I think that this is something to put into your thinking machines. With all of these things we're developing—for example, acoustiguides, which may be lovely for one kind of person, one age group, one set of brain patterns, one economic class, who knows what—one has to think deeply about all the people we're not serving with our education programs. Perhaps we're too slow, too fast, or we're selling the wrong information to many people.

This transcript appeared in Roundtable Reports *(Winter) 1978. A transcript of the discussion which ensued appeared in* Roundtable Reports *(Spring) 1978. Bob Widder is retired; Richard Randall has retired too, but serves as Director Emeritus for the Walters Art Gallery. Carl Scheele and Jane Glaser continue at the Smithsonian Institution.*

FROM THE CHAIRMAN: SAY IT AIN'T SO, BARB!

Ken Yellis, *Curator of Education, National Portrait Gallery, Washington, D.C.*

Novelists, according to Kurt Vonnegut, are like the caged birds miners take down into the pits to warn them of the dangerous accumulation of combustible gas.

I mention this because this novelist friend of mine just fell off her perch with her feet in the air—and I'm a little concerned. It may simply be that something got into the air of Stonington, Connecticut, and the noxious fumes finished her off. Or it may be that the atmosphere surrounding museum education is, as she says, not healthful for museum educators, in which case we should be dashing to the nearest elevator—up the shaft, so to speak.

Barbara Fertig doesn't want to be a museum educator any more.

Since Barb knows and is known to practically everybody in the profession, I won't dilate on her various accomplishments. Nor will I recount why it seems to me she, almost more than anyone else I know of, has made it possible for museum educators to describe their work with words like respectability and professionalism without fear of raucous laughter. . . .

More than anyone else whose advice and counsel and support I have sought, Barb has been my historical anchor in my work. Her awareness of the traditions and metamorphoses of museums and teaching in museums, her sense of the special nature of museums and museum-like environments, her ability to articulate the differences between learning in museums and learning in other situations—have all moved me along philosophically and professionally in a way nothing else could have done. Barb has given me a sense of place for which I am grateful, and I suspect that I am far from alone in owing her this debt.

But having anchored me and countless others, Barb has now cut herself adrift. And, were it just a change in directions or a change in careers—which largely it is—well, that would be okay. People can change their minds—or, as Barb herself writes in her letter of resignation to the MER Board: "There comes a time in any love affair when the pain outweighs the gratifications, and I have arrived at that point."

But it is the thought of the "pain" of being a museum educator that brought me up short and made me wonder if some of our other canaries are going to be dropping off. Barb's letter to the MER Board not only gives up the ghost but calls the whole museum education enterprise into question:

> . . . I find myself burdened, rather than uplifted, by the present relationship between museums and their public. Primarily, I feel that museum education is spinning its wheels, despite some wholly sound, enterprising and ingenious work by educators of good will and intelligence. At this moment I have no alternative but to believe that the leadership in American museums has failed in a vital task: to convince the public, the government, the media and the people who set policy in the larger field of education (those in universities, in state boards of regents and boards of education) that learning from objects is fundamental to building an intelligent individual.
>
> Sounds pretty global, huh. Well, it keeps me awake at night and ties my tum in knots, because I think that it puts a lid on our aspirations, makes it difficult for museum educators to be understood, and ultimately will erode the tax support of museums, as it now is beginning to take its toll on foundation support for museum education programs.

Global, indeed, at least for our little world, and by no means your run-of-the-mill resignation letter. It's hard to know where to begin to think about Barb's letter. My immediate and natural response is denial: that things aren't so bad; that "the leadership" in museums has indeed convinced "the public, the government, the media" and educational policy-makers "that learning from objects is fundamental."

But sober reflection and honest self-appraisal have forced several realizations on me. In the first place, it is not altogether clear that museum leadership universally holds that view of what is fundamental and what isn't. Secondly, if they, museum leaders, do hold it, they don't always make their case convincingly to outsiders. At least their shopping lists for funding support often include other—more urgent to them—needs than interpretive activities. Additionally, however, one must ask the basic question of whether the "interpretation" we museum educators engage in really does treat learning from the object as fundamental. Have we even resolved the question of what that means? Often we don't even teach *through* the object, let alone *from* it. The *thing* all too easily becomes the *excuse* or the *occasion* for some other kind of lesson, rather than the *reason*, the *essence*, or, God forbid, the *subject* of one. A lot of museum teaching happens *despite* the objects!

Somewhere between a sort of myopic antiquarianism or sterile connoisseurship that focuses on the object but completely misses its place in the seamless web of the world—somewhere between that and the elucidation of concepts so abstract, rarefied, and free-floating in the sea of ideas that there is no hawser long enough to tie them to a real object—somewhere there is ample room for the exercise of imagination in pursuit of reality. Most of us move routinely back and forth in this twilight zone trying to find a comfortable position between ourselves, our objects, and our audiences. But have we been comfortable without ever having been prosperous? Has our audience been as comfortable as we have been with what we've been doing?

I've been struck lately by some patterns I've noticed in visitor behavior. . . . There is a docility, an acceptingness, a stoicism, an indefatigability, and an enduringness about many of them—notably the family groups—that is puzzling, impressive, and heroic. There is a devotional, religious quality about these excursions that is humbling.

We are witnessing a *pilgrimage*. But we are perhaps not doing a real good job of helping the pilgrims, and it may be we do not understand the meaning of the pilgrimage. In a sense, we are Christians in Mecca—we've read the Koran, but its *religious* resonance has eluded us.

We talk a lot about the sense of *wonder* and mostly we have kids in mind. But there is a sense of *awe* that adults have perhaps even more than kids—especially the current generation of children who sometimes seem awfully jaded to me. Our society's religious symbolism may be weak but our secular icons are powerful and compelling. We come to do them homage which is not at all the same thing as learning about them. Comprehension is not only different from worship—it may actually interfere with it. We want miracles, not achievements; signs, not artifacts; inspiration, not information.

This is all coming out more emphatically stated than I really feel. I am ruminating—darkly. I keep thinking that I go to the movies or the theater and get entertainment when I need catharsis, a higher class of television that bathes me warmly when I should be scalded. I keep wondering if we are not misguided when we strive to make our museum environments welcoming, familiar, and comfortable when many people expect them—and need them?—to be austere, monumental, and threatening. I'm asking, I guess, whether we are not struggling to make it all "human"—in scale and in content—when it should *remind* us and *convince* us we are part of something larger and more wonderful than our mere selves.

Have we failed—to get back to Barb's letter—to communicate the message because we have mistaken it ourselves? Haven't we run the risk, in making it human, of making it trivial? I don't know, but in the past the person I'd have talked it out with was Barbara Fertig—and she doesn't want to be a museum educator any more.

This column by the then-chairman of Museum Education Roundtable appeared in Roundtable Reports, *V. 4, No. 3, 1979. Today Ken Yellis is Editor-in-Chief of* Roundtable Reports—*and continues as Curator of Education at the National Portrait Gallery.*

RUMINATING BRIGHTLY LETTER TO THE EDITOR

Christopher Crosman, *Associate Curator of Education, Albright-Knox Art Gallery, Buffalo, New York*

Since Vol. 4, No. 3 of *Roundtable Reports* seems to have been your "ruminations (darkly)" issue, I offer in kind the following observations without benefit of research, analysis, or particular rationale.

Mr. Yellis speaks of Christians in Mecca. Indeed, Christians are not permitted in Mecca which is probably closer to our own condition as museum educators *vis a vis* curators, directors, and administrators. In terms of audience, though, to gain entrance one must convert to the Moslem faith which is, I assume, the point of Mr. Yellis' analogy. I see real problems with that attitude while acknowledging there may be some truth to it.

I am not at all sure teaching in museums need address this "religious resonance" cited by Mr. Yellis as the principal need of museum visitors. The medieval layman approaching the god-head on his journey down the nave of a cathedral surely needed, expected, and probably received some sort of mystical experience. We, in a day of less certainty about end things, where the ideology of the Self is the new sign system, need to understand human experience which encompasses the divine but is manifest in the way living beings see and feel and symbolize their uniqueness through art. As museum educators we are responsible for interpreting the experience; joining the procession, becoming Mohammedans, does little to fulfill and probably negates our obligation to the public. The way I see it, given the immense problems and complexities of interpreting art as human endeavor, we need more pragmatism and less mysticism. I've seen a few mystifying museum education programs but never an example of mystical museum education. If someone can show me what it is, how it works, and most importantly its effectiveness, I will gladly trade in our Information Desk for an altar.

Ms. Fertig's lament that "leadership in museums has failed in a vital task: to convince the public, the government, the media . . . that learning from objects is fundamental to building an intelligent individual," is, I believe, premature. Museum education as a profession is very new and only now beginning to acquire a degree of acceptance within museums themselves. And this only through wide-ranging, often self-wrenching, even heroic (it would seem especially for Barbara Fertig), efforts to establish a sense of integrity, grace, and self-worth within museum hierarchies. That we have failed, and there can be little doubt that we have, in the larger arenas of public consciousness is only because we have failed to convince ourselves. Ms. Fertig's and Mr. Yellis' views certainly do little to further what little self-esteem we have won. If such highly respected directors and curators as John Walsh, Roger Mandle, Gregory Hedberg, and even, in his own oblique way, Philippe de Montebello (AAM Annual Meeting) all find education an essential museum function do we now question the necessity ourselves? Talk about spinning our wheels.

I couldn't agree more that methodology and practice need attention. But increasingly education is happening *from*, *through*, *because* of objects. *The Art Museum as Educator*, and *Roundtable Reports*, the Museum Reference Center (now also home for the dormant Center for Museum Education) offer numerous examples of programs that work, pointing the way for countless museum educators, myself included. I suspect that the "twilight zone" between object and observor is Mr. Yellis' own clouded vision of ruminations seen darkly, a temporary condition that attacks all museum educators from time to time. The task of the museum educator is clearly set forth if the object is known and the audience understood. . . .

Whatever does it mean to ask, "Haven't we run the risk, in making it human, of making it trivial?" If, as the question implies, humans are trivial, then, indeed, we are in serious trouble. Which is the greater *human* achievement: the Immaculate Conception or Durer's "Life of the Virgin" cycle? The one belongs to the realm of myth and mysticism—belief is its own interpretation. Durer's achievement, however, is about *human* wonder, awe, and the miraculous fact of Durer demands interpretation—especially for Mohammedans. Human beings—the inventors of those high markings of human achievement and aspiration which we call art—trivial? C'mon Ken, say it ain't so.

P.S. Keep up the good work in spite of/because of your doubts. I will be sending my check for membership under separate cover.

This letter to the editors appeared in Roundtable Reports, *V. 5, No. 1, 1980. Christopher Crosman is now Curator of Education at the Albright-Knox Art Gallery.*

A DISTINCTIVE BRAND OF EDUCATION

MUSEUM EDUCATION: MONOLOGUE OR DIALOGUE?

Thomas P. Weinland, *Associate Professor of Education, University of Connecticut, Storrs, Connecticut*

Richard L. Bennett, *Social Studies Teacher, Halls Hill School, Colchester, Connecticut*

We have all experienced that moment of curiosity in a museum; the beginning of our "conversation" with the exhibits or personnel. Something in the museum sparks our curiosity and inspires a question, opening up the mind to learning. Is the museum ready for a conversation? Its response to our questions and statements can tell us a great deal about the museum's objectives and the nature of its commitment to teaching.

As a museum seeks to communicate it must necessarily promote a conversation with its visitors. The conversation can be silent, as the visitor reponds to a combination of pictures, demonstrations, exhibits, and labels. In most cases, however, a museum seeks to share its understandings with the visitor through personal interaction. In the best of all possible worlds, this sharing will enhance the growth of both museum and visitor. How can this sharing, this conversation, which can be either a monologue or dialogue, be understood and developed by museum teaching personnel?

Despite growth in both staff and status, museum education departments have not always defined the nature of their teaching or the objectives they seek to accomplish. Even where objectives are defined, they are often at odds both with the methods museum teachers use in their education programs, and with the physical presentation of the exhibit itself.

If a museum's objectives can be expressed solely in terms of knowledge (*i.e.*, presentation of information about an historical period, a painting, or scientific principle), the museum educator's task is relatively easy. The museum must simply make sure that exhibits and staff present clear and accurate information. Information can be presented through a variety of media, labels, demonstrations, and lectures which accompany the displays. The conversation need be only a monologue, a presentation by the museum.

A museum's commitment to knowledge is neither as simple nor as outmoded as the previous paragraph might appear to imply. Indeed, for a museum *not* to present knowledge would raise a serious question about the museum's sense of responsibility. For many museums, space, staff, and funding restrictions limit the objectives a museum can reasonably hope to achieve. When well done, a museum monologue can be very exciting and informative.

Many museums have teaching objectives which go beyond knowledge. Art museums may seek to develop a visitor's critical skills while history museums may seek to develop interpretive skills. Museums may seek to develop historical perspective, scientific curiosity, artistic standards, as well as a host of other skills and values. Given such a commitment, a museum's conversation with the visitor must become a dialogue. The exhibits, as well as the teaching personnel, must be able to encourage visitor questions and react effectively to them. In addition, visitors must be encouraged to test their ideas and develop their skills.

With these objectives and the concommitant obligation of a museum to develop a dialogue, how can one train the museum staff? One can hope to anticipate the range of questions and ideas which will surface during a dialogue; but a museum teacher cannot always know where a dialogue will go. Granting that limitation, any museum teaching program must develop *two* strengths in its staff. First, the staff must have the strongest possible knowledge base, both of the collection as well as the background of the historical period, artistic movements, or scientific principles represented in the museum. A dialogue requires a confidence based on knowledge; without that confidence a dialogue quickly becomes a monologue, or worse, non-conversation.

A second skill is one we wish to address in more detail in this article. A museum's teaching staff must learn to recognize different kinds of questions and responses and develop facility in using them. One system for developing this skill has been devised by Byron Massialas now at Florida State University. Originally designed to analyze classroom discussions of social issues, this category system has much broader applications. Most important of these is in helping a teacher to recognize the elements of the discussion *process* and to see how specific kinds of questions and statements fit into that process.

Several clarifications should be stated at the outset. However one may wish to use the code, one will initially encounter a good deal of frustration in correctly numbering a question or statement. While being correct is important for research, we believe consistency to be the more important concern for museum teachers. Whether a statement is a (7) or a (9) is not worth an Excedrin headache. Here we must note that this category system emphasizes process. A statement of information without tying it to an opinion is coded (6). When information is used to support an opinion or hypothesis it is coded (9). Likewise, when one opinion is used to support another, the second is coded (9). It is important to emphasize that this system cannot evaluate the accuracy of information. It can evaluate only the process of the discussion. A person may state an opinion (8) and support it with erroneous evidence (9). It then falls to someone—a museum teacher or visitor—to question that evidence.

While the code invites judgment of a dialogue, such a judgment can only be made in terms of the museum's, the teacher's, or the exhibit's objectives. If the objective is to develop visitor skill in evaluating a painting, then one would expect visitors to supply some opinions (8), definitions of terms (7), and evidence (9) in the course of a conversation. One would also expect that the museum teacher would encourage that process through appropriate questions (3, 2, 4).

In encouraging the use of Massialas' system, we do not wish to advocate "teaching by the numbers." If every visitor hypothesis (8) invites a museum teacher's knee-jerk request for evidence (4), the conversation will soon become sterile, if not downright unfriendly. As alternatives, a teacher might invite other opinions; he might supply information without evaluative comment (6) and then ask for response to the new information (3). What is important is that any museum teacher be able to recognize the range of possibilities that every visitor statement or question opens up. By inviting or providing new information, by seeking definitions and supportive evidence, or by delaying discussion until a later time, a museum teacher can use the conversation process to develop the museum's objectives.

Museum education has made dramatic progress in the last ten years. With this progress must come a more extensive commitment to evaluate and develop the museum's teaching potential. Objectives must be more clearly defined, and methods and materials must be identified to achieve

Michigan Social Issues Cognitive Category System *

Questions

1. *Exposition*—speaker *asks* for general information, background or summary. (see #6)
"When was this picture painted?"
2. *Definition and Clarification*—speaker *asks* for the meaning of terms previously used or clarification of previous statement. (see #7)
"What do you mean by democracy?"
3. *Position and Hypothesis*—speaker *asks* for statements which imply "I believe . . ." followed by hypothesis, judgment, or preference. (see #8)
"How might this tool have been used?"
4. *Grounding*—speaker *asks* for reasons supporting hypothesis, judgment, preference, or definition. (see #9)
"What makes you think it could be used for that purpose?"
5. *Management-Routine*
"Could you please move closer?"
"Young man, could you stay on this side of the rope?"
"Any questions?"
"I don't know."

Responses

6. *Exposition*—speaker *states* general information, background, or summary. (see #1)
"That was painted in 1745."
7. *Definition and Clarification*—speaker defines terms or clarifies meaning of previous statement. (see #2)
"By democracy, I mean. . . ."
8. *Position and Hypothesis*—speaker *states* hypothesis, judgment or preference, implying "I believe." (see #3)
"It could have been used to split logs."
9. *Grounding*—speaker *states* reasons supporting hypothesis, judgment, preference, or definition. (see #4)
"Well, the heavy blade has a sharp edge which could work something like an axe."

*Originally developed by Byron Massialas, Florida State University.

these objectives. Whether monologue or dialogue, the teaching must fit the objective.

We believe that this classification system, or others like it, has importance for museum teaching. Such a system should be an important part of any training program for museum teachers. Where a museum's objectives go beyond knowledge, a training program must emphasize questions and the relationship of questions to the learning process. In addition this system could be used as one element in an on-going staff development process. Museum teaching should not be a question of staff titles or professionalization, but rather a process which encourages the creative talent of every member of the teaching/docent staff.

A classification system can also be applied to the evaluation of a museum's program. If exhibits or demonstrations are set up to encourage visitor dialogue, one can use this system to evaluate visitor response. For example, a museum exhibit might seek to encourage visitors to compare different artistic styles. The museum staff could record the amount and type of visitor response as visitors discussed the exhibit among themselves or with museum staff. In this way a museum can obtain some qualitative data evaluating its objectives.

Perhaps most important, use of a coding process can make us all more aware of the nature of the "conversation" between visitor and museum. We can begin to recognize the elements in the conversation which help to produce a monologue or a dialogue. Applying that awareness to the museum's objectives, we can better understand the possibilities for altering and developing that conversation, to the mutual benefit of the museum and the visitors its serves.

This article appeared in Roundtable Reports *(Summer) 1977. Tim Weinland is now a professor at the University of Connecticut. His former colleague, Richard L. Bennett, is a divinity student.*

AN AFTERWARD, 1984

Thomas P. Weinland

While recent trends in education seem to be taking our schools back to "content" and "coverage," museum educators appear more aware of dialogue and interaction as essential elements in museum curriculum work. What irony that school teachers are pressed to emphasize the content monologue in their work at the very time that museums are reaching out to develop a dialogue! If correctly defined, these trends may lead to increasing numbers of student groups armed with worksheets, seeking to "learn" content that the school may justify the expense of the trip.

I continue to believe that museums have goals which extend beyond monologue and content, and I am encouraged by museum educator interest in dialogue. A code for this activity still seems useful to me, although I have encountered considerable uncertainty and skepticism when presenting these ideas at workshops. Some of this resistance is to be expected: any code appears contradictory to the humanistic mission and method of a cultural institution. One suspects tht the quantitative Philistine might be infiltrating the cultural temple.

Another source of difficulty grows out of the code's complexity. Unfortunately the code is not a "quick-fix" for those who want to initiate dialogue or develop more effective supervisory procedures. Learning such a system may take more time than results would appear to justify. To this end I'm increasingly inclined to collapse categories 2 and 4 and 7 and 9 into a "probe" question (for 2 and 4) and a "probing response" (for 7 and 9). While some discriminating features of the code might be lost, the essential purpose of using this code is still met. If we want to promote a dialogue which goes beyond the exchange of information, or the exchange of unsupported opinion, we need to think about questions and activities which both promote conjecture, generalization, analysis and evaluation *and* elicit support for such statements. Whether one provides evidence or a definition in support of a statement seems less important than the fact that a speaker went beyond merely voicing an opinion. Simplying the code into essentially three categories of questions and three parallel responses gets at the heart of dialogue development and analysis.

I remain convinced that we need to continue to think critically about the issue of "monologue and dialogue" and the role of the museum in expanding its teaching potential. Some method such as the simplified code suggested here can help to focus our thinking and our museum program development.

TEACHING OR TOURING?

Patterson Williams, *Administrator of School Programs, Philadelphia Museum of Art, Philadelphia, Pennsylvania*

The museum public and even museum officials are often confused about the difference between gallery teaching and gallery touring. Museum teachers are often mistaken for tour guides and vice versa. "Touring" is usually the word used to cover *all* educational activities in museum galleries including the more intensive teaching activities. Careful reading of the dictionary or comparison of real life museum lessons (teaching) and museum tours reveals the substantial differences between these two public services. Why, then, is there so much confusion?

For one thing, terms like museum visit, lesson, gallery talk, tour, and lecture have different meanings at different institutions. What is listed at the Philadelphia Museum of Art as a "Gallery Talk" is called a "Seminar with the Original" at the Metropolitan Museum and a "Public Lecture" at the Art Institute of Chicago. In Philadelphia, a teaching experience designed for school children is called a "Museum Lesson"; at Old Sturbridge Village, it is a "Group Visit," and at Colonial Williamsburg, an "In-Depth Study Program." What is the difference between a docent, a volunteer guide, staff lecturer, museum teacher, group leader, group assistant, gallery interpreter, and an escort? If the function of a title is to inform the public about the skills and scope of services available from the title holder, the proliferation of titles is self-defeating. The public can have some assurance that curators are curators and conservators are conservators almost everywhere, but there is no such consistency for museum teachers and tour guides.

There are other reasons for the confusion. Both teaching and touring are transitory events that are difficult to study or document. Both occur in the same spaces, museum galleries; and frequently both involve one museum person (tour guide or teacher, usually female) and a group of visitors. As it were, "They all look alike." But the most distressing possible explanation for the confusion is that most of what can be seen in museums is a variety of touring, and that there is very little real teaching to be observed.

Teaching and touring are the two opposite poles of a continuum of direct services to museum visitors, and only by offering both kinds of experience can museums begin to provide a full spectrum of services to their publics. In the case of any given audience, the best sort of experience could be anywhere along the continuum. For a group of sightseers, an experience far to the touring end of the scale would most nearly satisfy the group's needs and desires. For a class finishing a unit on the Middle Ages, a teaching experience with medieval art would be most appropriate.

This concept is predicated on three major assumptions. First, museums have separate and distinct audiences, plural. Each audience, tour group, class has a different set of needs, background and group dynamics. Second, there is a variety of equally legitimate uses to which these audiences can put their museum visit from novel experience to lifelong scholarship. Third, museums should be capable of providing a *range* of experiences for these audiences. Given sufficient respect for its audiences as well as sufficient technical skill and sophistication, museum staff, educators, and curators should be able to provide a varied schedule of exhibitions (varied not only in content but also in method of presentation) and a varied program of public events, including both teaching and touring experiences.

The practical differences between teaching and touring are apparent from direct observation of successful examples of the real life events. Three major areas of difference emerge: pacing, group participation, and leader skills and preparation. . . .

Teaching and touring need not go on in groups or in the company of a human being. In fact, the most effective teaching or touring tools are often the physical design of an exhibition and its label copy, gallery handouts, video adjuncts, and catalogues. Distinctions between teaching and touring exhibitions are based on the type of audience behavior, the exhibition design, label copy, etc., encouraged by the exhibition. One advantage of a teaching exhibition is that it can usually be toured by those who simply choose *not* to make use of the teaching elements by, for example, not sitting down and watching a videotape, or by not reading label copy. A touring exhibit, however, can seldom become a teaching experience unless the audience is fairly sophisticated and familiar with the subject of the exhibition.

In the case of both teaching and touring, high quality experiences for the audience are best achieved when the guide or teacher is sensitive to the character and needs of the group and allows the group to make as many decisions as it is willing and competent to make. Making this happen while still accomplishing the overall goal requires considerable skill and discipline on the part of the human guide or teacher. The ultimate solution to providing good experiences, those tailored for the different audiences, depends on the ability of the guide or teacher to assess accurately the needs of the individual group.

Guides can be prepared in a relatively short period of time, providing that they are, as a group, as diverse as the museum's touring audience. If the audience is foreign the guide should speak the foreign language. If the audience is white and upper middle class the guide should be also; however, if the audience is something else, so too should the guide be something else. With some exceptions, most people find it easiest to be acutely sensitive to those most like themselves. Often people from one economic level can seriously misread people from another level. Meeting someone extremely remote in age or class can be disconcerting, can get in the way of an easy, smooth, cool tour.

Leader preparation needed to create successful lessons or successful tours (events or exhibitions) is quite dissimilar. A person planning a touring experience should be thoroughly familiar with the course, in most cases the general outlines of the museum's collection. On the other hand planning a teaching experience requires in-depth familiarity with individual objects and a thorough understanding of the developmental stages in the learning process. Being a tour guide requires a great deal of self-control; a calm friendly manner; familiarity with and sensitivity to the audience.

Museum teachers are longer in the making than tour guides. The museum teacher must be prepared to act as an instigator of profitable activity on the part of the audience. For this the teacher needs to have a thorough familiarity with museum objects usually obtained by having an academic background similar to that of curators or at least by taking advantage of curatorial research on museum objects. In addition the museum teacher must understand the learning process as it is experienced by a variety of audiences. The person who is capable of teaching should be capable of conducting a tour when the situation calls for a tour. Most tour guides, however, are not prepared to teach. Their flexibility is more limited. Museum teachers, by virtue of a double expertise (in museum objects and audiences) should also be flexible enough to communicate with a wide variety of audiences.

Both teaching and touring are in demand, both are useful, both can be done well or done poorly; but they cannot be judged by a common standard. They are different in kind. Far too often one is simply judged to be a poor version of the other. In fact, the tour that gets bogged down in a too intense conversation between the tour guide and one member of the group, or by a too lengthy examination of a single object is a poor tour. A group involved in a museum lesson (teaching) that merely walks through galleries pausing only for brief comments from the teacher is a poor museum lesson.

One reason for the proliferation of titles like teacher, docent, and staff lecturer, is that professional museum educators are in search of a distinction between their job and that of the volunteer. If volunteers give "gallery tours" the professionals give "gallery talks." If professionals are called "group leaders," volunteers are called "group assistants," in an ever-expanding effort, on the part of both professionals and volunteers, to differentiate between their roles.

Even more importantly, professional museum educators are searching for a way of notifying other museum officials, trustees, and staff that what a full-time, professionally trained, career-oriented museum educator can provide in the way of services for the public is different from what a volunteer can provide. In most museums, the professional educator performs those tasks which seem to require the most academic expertise. In some places this means that a single professional trains many volunteers who then do all the work with the public. In other museums with more education staff, professionals work with the adult public and volunteers with children. In still others, professionals may do "heavy," "college level" art history lectures with slides and volunteers may do "lightweight," "elementary" tours of galleries.

None of these distinctions makes much sense. Where the single professional trains the volunteers, the public never gets the benefit of the most expert teacher available, and the expert teacher teaches how to teach without testing any of the methods on the public. In the second case, it is assumed that it is easier to teach children than adults when it is more likely that the opposite is true. In the third case, the related assumption is made: that serious museum education should parrot college art history courses. This attitude ignores the unique opportunity museum educators have of working with *real objects* rather than what is, after all, only a poor substitute, *i.e.*, slides.

But it does seem logical, and even necessary, that in order fully to use the skills of each some distinction between the responsibilities must be made. I suggest the distinction be that professionals teach and volunteers give tours. Both provide needed services, each according to what she can do best. Not all institutions will be able to afford sufficient paid professional staff to put this distinction into practice; but all institutions with an eye to providing full and quality services for the public might plan for and work towards such a goal. Eventually it might be possible to professionalize tour guides also.

Hand in hand with a distinction in job descriptions and work roles, a commonly accepted title is needed. As long as there is such a variety of titles, the titles cannot serve their purpose. "Restorers" have become "conservators" as part of a re-definition of their roles and "curators" are called by no other name; therefore, let there be "museum teachers" and "tour guides."

This article appeared in Roundtable Reports *(Summer) 1976. Patterson Williams is now Director of Education at the Denver Museum of Art in Colorado.*

AN AFTERWARD, 1984

Patterson Williams

I wrote "Teaching or Touring" at the half-way point in my 16 years in museum education when I had done much gallery teaching and had no administrative experience. It was a call for more of a certain kind of excellent educational experience for visitors in which a superb teacher would direct an in-depth exploration of museum objects and thus provide visitors with a learning experience that was deeply involving, that altered perceptions, that substantially added to their understanding of the nature of being human.

Most museum visitors are directed through live programs or museum installations to have experiences that I would call "cultural exposure" or "amusement" or "leisure-time activities." When I visit museums as a tourist, a person travelling for pleasure, these are often the experiences I seek. These are experiences most museums "do" quite well.

The problem I saw in 1976, and still see today, is that the enormous educational potential in the unique nature of museum objects remains largely unexplored. What I see more clearly today are the major reasons for the lack of educational excellence in museums. In general, the reasons are threefold.

First, museums do not give high rewards—respect, power or money—for excellent teaching by staff or volunteers, curators or educators. Second, the people with the expertise to do this kind of teaching, really to invent it, do not exist in enough numbers to make an impact. Such expertise combines sophisticated academic knowledge of a field with finely honed teaching skills. Third, theoretical and psychological research about how people experience museum objects, how they value these experiences, and how museum personnel can enhance or stimulate the "best" object experiences does not yet exist.

Are these barriers insurmountable? Certainly not! In fact, overcoming them still promises years of exciting work ahead.

REBUTTALS AND A RESPONSE: TEACHING OR TOURING?

Dennis A. O'Toole, *Curator of Education, National Portrait Gallery, Washington, D.C.*

There is much plain good sense in Patterson Williams' "Teaching or Touring?" Museums do—or can—serve quite diverse audiences. Curators, exhibit designers, and museum educators would do well, as Ms. Williams advises, to learn the different expectations and capabilities of their audiences and do their work with those varying characteristics clearly in mind. These admonitions cannot be taken too seriously by museum persons who desire to make their institutions' collections more accessible and meaningful to the public.

But then, at the end of Ms. Williams' piece, I read a sentence which made me wonder whether I hadn't misunderstood all that I'd read before. What gave me pause was the author's suggestion that the distinction between responsibilities that museum educators should make "be that professionals teach and volunteers give tours." Why can't and why shouldn't paid and volunteer museum educators be trained and ready to give "intense, concentrated, and sometimes even disturbing" lessons as well as "gracious, cool, and pleasant" tours if they are capable and interested in doing so? As far as I can tell, neither nature nor nurture has placed immovable barriers to non-paid museum educators "teaching," as Ms. Williams defines that term. Of course, selection, training, and continuous evaluation are needed to prepare anyone to be an effective "museum teacher," but it escapes me what bearing one's employment status need have on a person's fitness for such work.

Then why is this suggested distinction put forward? Ms. Williams does not say in so many words why she thinks volunteers should only be "tour guides" and that only paid staff be "museum teachers," but her underlying reasons stand out clearly enough if one rereads the article with this question in mind. Stated most boldly, Patterson Williams believes that members of the species "museum docent" are unfit by virtue of the shallowness of their academic backgrounds, their relative ignorance of the learning process in the museum's various audiences and inability to be sensitive to people unlike themselves, to be "museum teachers." Docents (and this is whom she refers to when she writes "volunteers"), if adequately trained, can give "tours" but "teaching," alas, is beyond them.

This condescending attitude toward docents may be based on Ms. Williams' own considered judgment of the volunteers she's been acquainted with during her career as a museum educator. Maybe it has other sources, I don't know. What I do know from my own experience is that persons who volunteer their time and talents to museums can or can be trained to "teach" (by Williams' definition) in and out of the museums as well as to be excellent "tour guides." Volunteers will be as good as their training. They reflect the quality of the training provided by the "professional educators." Indeed, it's my opinion that a museum education program that does not allow for museum teaching by volunteers is seriously underutilizing its human resources and is demeaning its staff of docents. Expect little of people (and Williams' can't disguise her higher estimation of "teaching" over "touring") and you'll get little; expect much and it will be given.

Susan R. Trencher, Donna M. Schlegel, Margaret F. Morton,
Department of Education and Volunteers, Friends of the National Zoo, Washington, D.C.

After reading "Teaching or Touring?" the only point with which we can agree is that there is a profusion and as a result a confusion of terms used within the field of museum education. However, the article which Ms. Williams has written is itself confused and predicated on false assumptions. Therefore, it does nothing to help clarify the issue which she initially raises.

Ms. Williams' definition of tours vs. lessons is at best one dimensional and at worst destructive. As disturbing as her terminology is, we will not belabor this point since it seems to us that her flawed definitions are based on a fundamental error. This error is that "professionals teach and volunteers give tours." We have worked with volunteers in the field of zoo education for 3½ years and our own experience and conclusions differ so drastically from hers that we are at a loss to explain such divergency.

Ms. Williams' statement that "Eventually it might be possible to professionalize tour guides also" is distressing and offensive. A professional is defined as "a person who does something with great skill." The participants in the volunteer guide program at the National Zoo, and in other programs as well, perform their jobs with intelligence, enthusiasm, and reliability. Their knowledge is vast and their learning is self-motivated. They are already professionals. Implicit in Ms. Williams' article is also the assumption that the *paid* staff member who has earned his or her college degree from a duly accredited university is by his or her very nature superior to the volunteer. Do museums, zoos, and related institutions really have to get caught up in measuring the worth and/or intelligence of its staff by the number of degrees and size of salaries they earn? This reeks of elitism.

Contrary to Ms. Williams' assertion, guides do not have to be black to teach black school children or middle-class to teach middle-class school children. They do need to be knowledgeable, sensitive, and enthusiastic. These qualifications, more than color, class, college education, or salary determine the success or failure of any learning experience.

These rebuttals appeared in Roundtable Reports *(Fall) 1976. Dennis O'Toole is now Vice President for Historic Area Programs and Operations, Colonial Williamsburg, Virginia. Donna Schlegel is Director of the Office of Volunteer and Educational Services for the Friends of the National Zoo (FONZ). Margaret F. Morton coordinates the animal hand-rearing facility at the National Zoo. Susan R. Trencher, pursuing a Ph.D. in anthropology, is also volunteer coordinator for the FONZ Panda Furniture Project.*

Patterson Williams

In considering a reply to the response to Mr. O'Toole and others to "Teaching or Touring?", I have decided that the sticking point is, in essence, the question of whether museum education departments should be staffed by paid full-time "professionals" or by volunteer part-time "docents." My reply is, therefore, a clarification of some thoughts on that question.

As fund raisers and policy makers, volunteers have been instrumental in starting museum education departments. Such help is still needed and always will be. In the staffing of education departments, however, volunteerism can be destructive.

Today many museum education departments consider themselves "professionalized." That is, paid staff persons do administrative and secretarial work and coordinate division of education activities with that of curatorial, security and other museum staff. However, actual contact with the public—the essence of any educational service—is still performed by volunteers or docents.

Thus after over 40 years of existence and despite the widespread "professionalization" of museum education departments, the field of museum education has produced only a handful of professional museum *teachers*. Furthermore, many administrators of volunteer-staffed programs assert that limited funds make fundamental change impossible, or that there is in fact little difference between what a volunteer docent and a professional museum teacher can do.

Taking the second assertion first, consider the following: A docent conducting one tour a week for 48 weeks a year has 48 experiences per year. A museum teacher teaching 10 classes a week for the same period of time has 480 experiences per year. In terms of working experience, which is usually directly related to professional maturity, a docent of 10 years is comparable to a museum teacher finishing his or her first year of work. Given this kind of accounting there are, among the many museum docents, very few who have had the opportunity to mature in their field. Even after 30 years of service a typical docent has the work experience of a novice museum teacher. Among the few museum teachers that exist today, there is only a handful who have over 10 years experience. In conclusion, there is not, and never has been a mature work force providing direct touring or teaching services to the public in museums. Is it any wonder that museum education has not yet fulfilled its potential?

In the 40 years of their existence, museum education departments have not progressed beyond the elementary stages of program development. Education programs (despite some strong experiments) consist of the same narrow range of tours, treasure hunts and lectures that are listed in museum brochures of the 1930s. While many of the docent conducted programs are well done, they represent only a fragment of the range of programs needed to effectively serve a museum's audiences. This lack of development is probably in part a direct result of having a volunteer and temporary docent work force rather than a full-time, well-paid, and career-oriented museum teaching staff. The operative words here are "full-time" and "career-oriented." A docent who will work eight hours a day, five days a week, 48 weeks a year, and who will commit him or herself to a 30-year career as docent is a docent of professional caliber. We cannot realistically expect that kind of service without paying for it.

In recent years a rhetoric of museum education has grown more complex and sophisticated as a result of having professional museum education administrators. Such rhetoric, however, will not be translated into action until there is a group of professional museum teachers. The success of the best planned curriculum is totally dependent on the existence of highly competent teachers.

In considering the problem of funding for museum teachers, several solutions are possible. Administrators might devote more substantial portions of their time to teaching. Some secretarial work, acting as receptionists or taking appointments, might be done by volunteers and the money thus saved, spent on museum teachers. But the most likely source of money will probably be directly related to the development of some sophisticated education programs.

At the 1976 AAM Conference several educators, not from museums, expressed considerable doubt as to the seriousness of the educational intentions of museums. Better, more serious, educational programs might open many new avenues of funding from sources normally reserved for accredited educational institutions. Or, museums could seek accreditation for their own educational services. In any case the problem of funding museum teachers is not hopeless.

In conclusion, the museum education profession is at a crucial crossroad. In the next five years most museums will continue to face serious financial problems and we have not yet produced programs of sufficient complexity, variety and seriousness to warrant keeping any professional educators in museums. The reason we may not warrant future funding is that in the past we have not channeled enough funding into the development of a mature workforce of professional museum teachers.

This author response to the readers' rebuttals appeared in Roundtable Reports *(Fall) 1976.*

IMAGINATION IN TEACHING—REFLECTIONS ON MY FORTNIGHT'S WORK

John Fines, *Head of History, West Sussex Institute of Higher Education, West Sussex, England*

I came to Washington, D.C. determined to use these lessons to explore how I use imagination in teaching. I had made several attempts to write a theoretical paper and had failed, and was driven back (as ever) on to practical experience to find out. I would need to watch myself at work, examine in the conscious mind those intuitive jumps and sideslips I make when at work and see whether I could make any sense of it all. . . .

It is clear to me, looking over the past four days that sequence has been central to the work. I propose to outline some rough stages, say what parts of the teaching goes into them, and try (but probably fail) to say why.

The first stage is previous to the teaching, and concerns what I take in to it. I suppose the most obvious thing is a negative; I don't appear to take in lots of knowledge, even though in some areas I possess a fair amount. I take in a determination to focus down. To many docents the most shocking thing about the work they have seen is that I concentrate on one object and usually on one aspect of the object. Worse still, the aspect is most usually in the domain of ideas, not in the domain of information.

Let us illustrate: With the museum education students from George Washington University, I explored one aspect of the steam engine. I had read the sign-board and a pamphlet, and was soon awash with information, but the one piece I picked was that the engine was often run without the condenser, in danger of blowing up, presumably because that meant more work and the risk was regarded as worth taking. I don't happen to know what a condenser is, but that seemed no great problem. So we explored for a little while a community with that steam engine in it, running without a condenser. And we learned a lot, a lot about those who knowingly took the risk and about the balance of optimism and pessimism in those who *had* to run the risk.

In discussion afterwards one member of the group explored with me the implications of this kind of work in terms of the particulars and the universals. We had noted that most new power sources carry risks (present day nuclear power is a very apt example) and that our steam engine exercise stood in the universal area of exploration. I had not worried too much about the particulars of *that* engine, but how I could use one particular to spin off into an exploration of the universal.

Thus it is very clear that I carry in with me various attitudes about the purpose of education that may conflict with those carried in by some museum educators. For they celebrate individual items of supreme quality, whilst I use them for an exploration of humanity at large. . . . I am concerned to explore ideas, and most often ideas on the moral plane. I am not a very moral man, but I do have a profound respect for moral issues and a concern for the practice of morality. Secondly I am work-centered: I have a passion for work as a way to lead to understanding and satisfaction; above all I want others to share the pleasures and results of work, and I am by nature a setter-on. Directing the labour of others is a natural afinity of mine! Thirdly I want to emphasize respect—respect first of all for ourselves and for each other, for a willingness to listen and share, and a pride in achievement. But also I want to encourage a respect for quality. . . . I have been given respect, lots of respect and love, little if any of it deserved, and I have enjoyed it. In a world where so many people see so little of heaven, win so little respect, and in the blackness of their hollow can see only the struggle with others as a way forward, I want to say that you too can have some of the joy I have seen.

Two further things I carry in with me, much less high toned, but of great importance. I take in experience—quite a lot by now. Those watching me now see teaching such as I watched years ago, and lusted after, but I was a baby then and needed to grow slowly. Many kind people watching me now say how gifted I am, and I growl back that I had few gifts at the start. Once I taught so badly that I cried each night with rage and frustration like any baby should. I have had to itemise the gifts I wanted, and go buy them with experience. This has meant years of doing teaching, true, but also years of thinking about it, writing about it, trying to itemise my shopping list of what I need, what I lack, how precisely I might practise to get it.

The second thing I carry in is the will to win. That sounds a little like a fight, doesn't it, yet I do not fight people any more. My will is still partially my own egotistical desire for success, of course, and that is a drive we should never despise, but always seek to control. The will to win grows better, stronger, more useful the more it becomes a will for the others to win, for us all to breast the tape together. To make this happen I have had to learn to concentrate, to push all of my attention, all of my powers out to the children. Many people watching wonder how I cope with audiences or observers: Like many other seeming constraints, audiences have been the best thing that has happened to me, for because I *must* shut them out I have learned the better to put all my attention onto the children. When teachers come to me with a problem, I say to them that it is, if only they could see it that way, the best thing they have. Tie my hands and I use my face and body better. Deny me pencil and paper and I learn to remember.

Concentration sounds very cerebral, and may be explained in cerebral ways, but it has not been my experience. Concentration comes with caring, with focussing our common instinct to love and teach others. What I focus is not my mind, but my heart. When children fall for me it is not because I am Svengali, not that I have used clever tricks, but because I first fell for them, and they saw that. At the Corcoran a little girl said after the session "You know I was so nervous when I came here," and I replied, "You didn't show it." She told me, "No, you see as you came up smiling and said, 'My name is John,' I knew it would be all right."

Beware, dear reader, of assuming that because these programmed behaviours may be learned that you can put them into action without first analysing what *your* stage one is. For it will be different, it should be different, and will involve many different patterns and sequences of learning. I, in describing mine, am not setting up a model to follow, but a framework whose constituents are variable, a way for you to examine how you might work out how you work and how you might work better.

TEACHING CHARACTERISTICS

Because my job takes me all over the British Isles and abroad to teach for others to watch, I am always meeting fresh groups of children. At the end of each lesson I yearn to go on and build more and more, to profit from the contacts I have established with children. I look back to my days as a classroom teacher with a feeling of loss, the loss of that day by day growth in learning together. But the process of meeting fresh groups has made me a specialist in those initial stages of meeting and making relationships out of which learning can grow. If I am good at anything in teaching, it is that. Let us examine the constituents of that stage. In looking at what is effectively for me four or five minutes of work, I am surprised to find there are nine constituents.

First of all I am polite. I think many teachers emphasise politeness, but tend to view this as something pupils offer them, rather than what they offer the pupils. Even if this were to be the right balance it is clear that pupils do need an example on which to model themselves. Teachers need to think carefully about the image of politeness they present: The felt and sincere good-morning-greeting as genuine welcoming rather than the ritual expression of words to cover the lack of contact; the proper sense of "please," which is an understanding of the dimensions of what it is you are asking, what it involves, how much effort; the real "thank you" that is the surprise of an unexpected gift and the gratitude that goes with it.

Secondly I show no marks of authority, expressed by assumption, word or gesture. I am not saying that for one moment I renege upon my responsibility as a teacher. I am in sole charge and things that happen are my responsibility. I decide on how and (most importantly) when things happen. For if I am not in charge, who can be? If I lose the responsibility to orchestrate the event so that changes happen roughly every ten minutes (to preserve concentration over the long stretch of time) and move, step by step towards a satisfying conclusion, then once again, who will?

Yet I know the extent and power of adult threat. The experience of childhood is very largely made up of failure and correction—this is inherent in the complex business of learning for adulthood of any sort. As will be clear from future sections, my kind of learning depends on structuring towards success and for this to work I need to abolish all threat and all superiority.

For many teachers struggling with acute problems of discipline (and I am very aware of how grave and humiliating these can be) these words must seem both nonsensical and insulting. Yet I can only offer my experience, which is not only that the absence of the marks of authority and correction leads to an absence of indiscipline (there is, effectively no room for it to enter, no challenge for it to face, no reason for it to happen) but also that in role-play situations I have consistently found that the lower the role-status I assume the greater is the responsibility and sensibleness and cooperation to be seen in the children.

Thirdly I am slow—to many watchers painfully slow. There are, however, two reasons for this. First, very simply, children don't like being made to jump. Babies will play "boo" with known faces, but the stranger who cries "boo" creates tantrums. Children hate to be taken unaware, to be rustled into things. Running for a bus, the adult knows why it is important to catch it, but the child does not and screams with frustration and fear. So I, at this stage must move slowly and gently, not progressing to the introduction of *b* until *a* has been satisfactorily comprehended and explored.

The second reason for slowness is a teacher's reason. At this stage I am giving out lots of signals to the children about the nature of the relationship and the activity I plan, and this is relatively easy. What is complex is receiving back informations of two kinds: my signals are being read, or are missing the mark, and I need to see how they are being read, and how I can adjust the range; but also the chldren are sending back signals of their own to me that need interpretation. Is that yawn a sign that I have tired children, bored children or nervous children? Is that kittenish smile mere coquetry or is it a response initiated by me? To do all this receiving and interpretation and redirection of my own signalling I require time more than anything. I think fairly fast, but I know that I am often not too good on first impressions, and that quick decisions are often folly, so I must pace it slowly, for my sake as well as for theirs.

Fourthly I must smile—oh what a book I could write about smiles and their many shapes and functions, but I will never get finished on this if I do. The smile resides not in the mouth, as clowns think, but in the eyes and in the lift of the cheeks. God gave me bright eyes, the optician gave me glasses; God also gave me a saddish but highly mobile face. At rest it is a solid rather miserable pudding, but in action (as I have learned) it can flash so many messages. I have had to learn to twist my face and pull it into many shapes to make it useful, and now it is working for me quite well. A six-year-old once said to me, "I like you for my teacher, you have such a funny face," and the audience laughed but I felt that was my Nobel prize.

But the smile can be vacuous if it only leads to another smile. It should lead to laughter too. Self-examination often drives me to be solemn, and although I respect above all moods the serious, I have also learned to reject the solemn. The greatest human bonding of the stage of introduction is shared laughter.

Let me pause to illustrate. At the National Archives we had quite a tricky beginning. In an elegant eighteenth century-style reception room sat about thirty highly successful and well-integrated docents, who were very much at home, and who had the best chairs all around the walls. After a few minutes talk enter ten seventeen-year-old black students who had to sit in a horseshoe in front of me. The signals they gave were not so hard to read, but we had a document to read too—a police blotter from the day of the Lincoln assassination. I knew I must move with cat-like tread, but here I had to get quickly to laughter, and so it wasn't long before those students were running a police station and I was being brought in on a charge of mugging an old lady. The document would wait—it had waited a century and more already—but the laughter wouldn't. And of course the reversal of roles, and all the silly incidents involved gave me what I wanted, the shared laughter that bonds and relaxes. Soon these fine students were insisting that the docents join our game, and share it all too.

Fifthly, how is all this achieved?—well very much (if not all) by eye contact. In our world of pseudo-politeness we often avoid eyes, feeling that the contact brings an intensity we don't happen to want at that moment. But at moments of deep inquiry, at moments of greatest sharing, at moments of true intensiveness, we do seek each other's eyes. The teacher must learn to do so all the time in this first stage, and to move the head from person to person to seek out all the eyes—for eyes can speak over long distances. They also carry the strongest messages—the glazed eye of the switched-off or the self-protective, the sparkling eye of the one who wants more of that stuff, the wandering eye of the insecure, hyperactive or lost child, the solemn eye of the wondering receiver, all bear messages. Why is the mother's cry of "I see you" so strong an evocation of the bond she has with the baby? Why do the children's eyes follow the thing most desired, even before the pointing finger adds a level of communication above the primitive? These questions need no answer, nor do we need to articulate why the angry teacher shouts, "Look at me when I am talking to you," to the errant child.

We must also use our bodies. At the National Museum of American History these tools, so much more than words, helped the children explore the workings of a steam engine, so much so that one of them produced out of this a bullet of profundity and great beauty. But here I wish to emphasize more the presence of the teacher's body, and the power of touch. Touch is so intense, so private a medium of communication that many teachers firmly reject it, and I know that many teachers who watch me think in their hearts, "People can be *too* fond of children." . . . But if we allow our fears to turn us into cold people, when we have searched our hearts and know at last the validity of our warmth, it is going to be a sad and limited relationship for both teacher and learners if we reject its powers. Touch brings presence, immediacy, comfort, the strongest symbol of our sharing, and it can get you there faster with the disaffected than any way I know. Of all the "naughty" children I have met, and I have met many, I would say that some are truly creative individuals, fighting off their bonds but most are deprived of warmth.

I spoke earlier of the saddest aspect of childhood, its consistent experience of failure, a problem that all children meet, whether deprived or gifted. My next aim in my opening stage is to raise children's self esteem and to inspire them with optimism. Here I have a weapon in my hand (and it is a weapon rather than a tool) most teachers lack—I have the audience, the observers of my teaching. In demonstration teaching there are a hundred and one ways available to me to downgrade the audience and upgrade the children. I can, for example, tell the children perfectly honestly that they are the most important people there, without them nothing would happen, and that the audience is either a nuisance we shall ignore like lords, or use as slaves for our needs. I do this partially to upgrade the children but of course it does also help in getting them to feel comfortable about the audience.

The teacher on his own has to use other devices, and because I am so rarely on my own I have little advice to offer, other than to say that the chlidren must begin to feel like operators before they can operate. Role is a help—pretending to be someone more important than you are is one way to assume authority. Facing the fact that the task is hard and will demand great things of the children is another way. Often I say to children, "I give you such difficult things to do—are you sure you can manage?" And they do. Trust is another feature. "I know you can work on your own very well, so I am going to shut up now, and leave you to it." Praise is another and I will return to that. Simple things can help too, like saying to children that their answers to the question you have posed will be important so we will write them on the chalkboard just as they are spoken. At the National Museum of American Art we wrote up a definition of heaven before visiting *The Throne of the Third Heaven*, and it got better and better as the chalkboard filled. The effort to provide better answers was encouraged by the waiting time involved whilst I wrote.

Finally we must establish our role of fellow learners. The difficulty here is one central to the whole role of the teacher at this stage, for it depends on honesty, a quality hard to find in circumstances so unnatural. But it also requires a kind of external vision which is directing the process and both shaping and using the honesty.

To get near an understanding of this complex process we should start with one of its most sharp and defined constituents: for example, the asking of real questions. In half a lifetime devoted to education I have heard some very spirited guff talked about open and closed questions, and I have come to the conclusion that there is little point in the discussion on these grounds. There is, for example, nothing wrong with the question, "What time is it?" and nothing right with the question, "How do you feel about war?"

What we need to have are real questions, honestly posed, because you desire to know an answer or many answers. Children are often exposed to both closed question routines in which right or wrong is the result, and elaborate guessing games in which the teacher's fixed opinion has to be found, by hook or crook. Therefore when faced with genuine questions they pause to consider the nature and implications of this new game, and the teacher may have to wait.

When I asked the children to help me imagine the man who created *The Throne of the Third Heaven*, this was something *I* wanted to do and was asking their help. When they knew I was genuinely asking their help they gave it, and I shall find help from the vision of "a lonely man in a shed" when I am privileged to see that object again.

But behind the honesty of purpose there must be a purpose for honesty, a reason for it to make us see how to use it other than just radiating virtue, and this leads me to my last point in this introductory phase of the lesson—the nature of the conspiracy to learn.

I said at the start that I am interested in work, that it has given me a lot, that I want to share it with others: but this doesn't blind me to the fact that work is hard and all men preternaturally lazy—me I often find most of all. Almost anything could stop me writing now—food, the doorbell, the newspaper, the desire for sleep. I have a pain in my hand (at least!) and my head aches. What makes me go on?—The desire to make, the desire to achieve, the desire to communicate, these things fuel the rushing pen.

But what makes children work, work freely and with pleasure? I think my honesty, my desire for an answer and my willingness to be a co-worker with my children makes them work. The desire to please is the hardest taskmaster I know, and children have a strong desire to please, to satisfy, to do well. But not just for me, *with* me as well, because they believe I am telling the truth. To lie to children, to attempt to hoodwink, con or in any way to deceive is to invite not just failure, but hatred as well. Beware, your sins of dishonesty *will* find you out.

LEARNING CONSPIRACY

Whilst this stage of getting to know the children and them getting to know you has been going on, a new stage of teacher thinking should have got well started, for it is essential for children who are readied for work that they should then have clear and achievable tasks to do. What follows suggests that, although the teacher will have come to the lesson with a great range of ideas about how it *might* go, the real planning takes place *in situ*. Believe me, I do not wish by this statement to denigrate lesson planning: Before my lesson, my head churns with possibilities, and I work hard to extend the list and imagine them through the process of teaching so that I can see what the problems and possibilities might be. What I do not do is to decide what will happen, for only God is supposed to preordain events, and there are many times of doubt when even the most godly must question His judgement.

During the initial stage one picks up a whole range of information about what is possible that day. All sorts of factors contribute to this, mood, weather, state of health, conditions and events in general. The appearance of a child to ask who has lost a blue sneaker in this class right in the middle of your buildings can deflate it beyond repair, as all teachers know to their cost.

So you will learn that some things cannot be today, but some things can. and the next stage is to mesh this information alongside the material you are going to use. Luckily the material doesn't change from day to day, and your knowledge of that remains a blessedly stable factor.

Thus you might have some very still, quiet, defensive children who are rather weary, to show an exciting spark-filled picture, for example. Your mind must now race to find the way of bringing the two together, but if you are wise you will first try to find what is at the centre of the experience you now plan, to know it for yourself, to find words to make it clear to others. The centre of the situation I have described is the noise/silence dimension or the active/passive dimension, and my problem is to join them. Thus I will beguile the children with a paradoxical conundrum and say, "I expect you find my questions strange and provoking. A lot of children do, but sometimes these questions help us understand things. I'm going to give you a very strange question to brood about. It's not one of those questions you *can* answer straight away. You have to think about it. Ready? Well, here it is: Have you ever seen a noisy picture? I know, it does sound silly, but in a moment we're going to look at a picture I have found to be rather like noise. If I promise to keep very quiet while we stand and look at it, will you look at it with me, just quietly and restfully, and see what you can see?"

The beguiling process of being both clear but wrapping the event in sheltering clothes is most important, but it yields results. At the Corcoran I had quite a shy group looking at pictures and I wanted them to have the feeling of expressing their own ideas, so when they were looking I gave them adult secretaries to write down every word they said. When we got back to the group to report our ideas it was clear to me that the children had some fear of expressing their ideas in public, so I used the following beguilement: "I don't know what would be best, for you or for your secretaries to read. It's quite nice to listen to your own words read out by others, isn't it? But on the other hand, these being your *own* words, they might need your *own* voice. I'll leave it to you to decide." Each child read his own piece.

Most explorations of material must begin with a question, a problem which supplies both the reason for looking at the material and a framework for exploring it. Most gallery visitors seem only able to scan material, never to penetrate it, because they lack a personal reason for looking ("I suppose it must be good, it wouldn't be here otherwise. So I'll take a quick look, pay my respects.") and they lack a way of looking. Thus when my children faced the steam engine with the need to find out how it worked (because we were going to use that information later, not just because . . .) we had to find a starting point. We would gain nothing from just staring vaguely at the lot, and all the children agreed we should start where the power began, and try to understand that, ignoring all else. Slowly we allowed our eyes to follow the line of impetus of power, pausing at its connections, and by the end of a very quick look we did know quite well how it worked—enough to go back and explain it in mime, which was a very hard task indeed.

The question that begins the process of exploration needs, then, four constituents: it must be simple, not daunting or complicated; it must be clear (that is it must make sense in the pupils' terms, which can be a different sort of clarity from the teacher's); it must be seen to be answerable in the time and circumstances, and to be worthwhile from the pupils' points of view. Above all it must lead straight into action for the pupils, for they have been long enough with teacher and need a change in which all those claims about the children's work having primacy must be honoured.

But before they rush off into action one more wind of the elastic is needed. You can think great things one moment and forget them the next, so the ideas must be written down—just well enough for the pupil to read them back, no more is needed. And of course everybody will write his ideas because I am the kind of teacher who wants to hear everybody's answers, not just those old eager beavers with their hands up, and if everyone has something on his paper no one can respond "I dunnow."

Whilst the children are at work it is time for the teacher to watch and think. He can can how they are coping with the task, where the problems are, where they are edging forward. He can observe and note the varied capacities of the group. Some he can help, pick up the birds who have fallen out of the nest, but if he is wise he will leave well alone most of the time, receiving clues from the class in action and thinking about the next stage. Lots of teachers comment that I always seem to know precisely where to go next, and are genuinely surprised to find that I use the children's action time for working out just that.

The teacher must be ready at the end of stage three to welcome back the children as successful explorers, to compliment them on their discoveries and express amazement at their ability to cope with so many problems *en route*. The teacher must be in a listening mode, ready to receive all contributions and process them in two ways: first to make all positive and second to mould it all in the simple direction already established, not confusing the issue or allowing irrelevance to mess the simplicity. In doing this the teacher must not damage the child's communication, nor steal it by prettying it up beyond recognition. Nor must he throw it away. All must be seen as categories of the heart of the matter.

This means hard listening and hard thinking, lots of patience with stumbling speech. I often tell children at this stage, "When we can say it straight away, nine times out of ten it is because it's easy. When someone is reaching for words and just can't quite get them, I usually think that that person is onto something big. So we all listen hard, and try to help." At the Corcoran a girl said of one picture, "It would cost more in the shop, it's kind of muzzy," and could get no further, but by listening and thinking sympathetically we began to see that she was saying that some paintings that were straight representations were more like photographic records, but this was more like an artist's vision.

As the responses to the initial question accumulate into an untidy heap, two aims must be held in mind. First the good must be praised, so that the children who have found the good will go out and find better. Secondly the material found must be organised to that its significance shows in a shape with a forward moving front.

Praise is hard to stomach for some observers of my teaching: For them it seems sickly and flattering, turning a class into a mutual admiration society. But I use praise because I need it for imprinting success, it is a part of learning, and without it learning slows down, often to a stop. Praise and correction are vital tools in the process of development, but praise wins where correction fails. A thoughtless wistful child needs correction to protect him from danger—personal danger like creeping towards the fire and social danger like developing nasty habits such as spitting at others. You can stop these things with a slap and there's nothing wrong with that (except the guilt the adult feels, I suppose). But you can't promote learning with slaps as the lisping child at the start of *The Way of All Flesh* tells us so clearly.

Praise is a reward all of us enjoy. I pretend not to notice the clapping at the end of my sessions, brush off the words of thanks, but I enjoy it, it confirms me in my vocation. And this is the function of all praise, not only saying "Well done" about the past, but much more importantly "Go on the same way." For praise to be effective it must say *why* you have found the action or the statement good—the mere cheer is nice, but the statement, "I liked the words he used there, will you say it again for us, they were too good and thoughtful for us just to pass by," will guide to deepening.

The other teacher function at this stage is to order the material contributed by the children, and as I have said already once, to order it pointing forwards. There are two immediate ways of doing this, to categorise or to sequence, and it is important that the teacher chooses the right format, in terms of the material contributed and the tasks that lie ahead.

When I was working with the police blotter at the National Archives, it seemed very clear to me that I should group the students' perceptions in terms of sequence. It was clear that the document was written in sequence, as events happened, with pauses of varying length in between. Clearly, if we were to look at the document as a representation of events, then we would need to attempt to resurrect those events with its aid and add to them the extra dimension of time.

Many objects may be studied through the dimension of time. Looking at cultural objects in museums I often feel the absence of the maker and the moment of making. Perhaps the exploration of objects just as presented, rather than in terms of how they were made, may be one of the problems for pupils trying to find a focus.

To categorise is a very different activity indeed. It involves moving the materials around under different headings and searching for clearer, simpler and (above all) fewer headings. Looking for the word (and if you can find one word, that is the supreme moment) is a hard activity for teachers, for they must do it whilst listening. This involves a splitting of the mind but no splitting of the face. Whilst half the mind is thinking "where is the centre, the heart of all this" the face must be saying "I hear, and I understand" with absolute sincerity.

Once the centre of what the children have discovered is found by the teacher, it must be interpreted to the children by the teacher. This point is easy to miss because the teacher who has thought it all through (and is justly proud of his discovery) can simply forget that no one else has done that thinking through which alone makes sense of the discovery. So a phrase of explanation is necessary and it must be done slowly.

To get the slowness required it is useful to assume a meditative mood in which the thinking through is role-played by the teacher: "Do you remember when he said that piece about Art—remember, well I was quite excited by that. It set me off thinking, because Denis here had been using that word 'reality,' and lots of people seemed to perk up at that, and it made me think a bit—is it possible to divide pictures that way—this one more about reality, that one about Art? I don't know, what do you think? . . . let's think about just these two words then, to see whether we can see more in them. . . ."

The steady growth towards understanding of the second task is important, for the pupils must catapult off in real knowledge of what they are doing. This fifth stage of the lesson is crucial if real depth is to be achieved, if the central question is to be answered. All that has been described so far has been preliminary to this. So when they seem ready to go, hold them one more moment and check.

In stage five the teacher is once more a watcher, but now he has an additional worry—time. I often say that my best teaching aid is my watch—quick glances tell me whether I have been going on too long in one phase, and need a change of concentration; but more importantly, in this stage it tells me how much time I have got left to satisfy the children, the material we have been using and the direction we have been going. The most foolish lesson of all is one that runs out of time and yet has to finish; the best is one where all can see the point they have reached, and feel good about that achievement, and then the bell goes.

So the teacher is now busy calculating what *can* be done in the remaining time and how fast he dares to go. . . . There may be time for another look at the object and further exploration stages. Children can go back and back to their material with ever deeper, more refined questions. Let us assume, however, that time is short, and in receiving the children's ideas resulting from their exploration in stage five, the teacher is once more arranging the results either in sequence or in categories towards a final conclusion, the end of the lesson.

How may we best understand what we have found in all this work? Well the teacher can just announce it all. On the other hand he can orchestrate a reading from the children's records where they are the announcers. Both techniques were used in the lesson with *The Throne of the Third Heaven*. When the children had filled a chalkboard with definitions of heaven I stood back and assumed a parsonical stance and voice and turned it all into a sermon. At the end, when each child had prepared a piece on who was the man who created *The Throne of the Third Heaven*, I organised a quiet reading, moving without comment from one to the other, emphasizing the importance of the moment, but also emphasizing that it was all theirs by my keeping silence, only touching a shoulder to indicate the next person to read.

On the other hand there may be time to heighten meaning by an act of translation, which in learning terms is the ultimate in understanding. To take what is written and turn it into pictures, to take pictures and turn them into movement, almost any act of translation is a challenge to total understanding. With the students at the National Archives (despite very little time) I asked them to take the Lincoln document and turn it into instructions for an artist. One group briefed a novelist, because the document lacked background; another briefed an abstract painter, because so little was known for sure, so little of the information had sufficiently hard edges; one group briefed a musician about a piece that started slow and orderly, was suddenly hit by chaos and pandemonium then suddenly ended in silence, like the end of the document.

Whatever is done, it is the teacher's duty to make clear at the end what has been achieved, that the children did it, that it has been worthwhile, and that there is more to do. Whatever devices and games that have been used to focus attention and provide the framework for exploration must now be disassembled, so that the end may be seen clearly, and not mixed up with the means. The achievement must have its own satisfaction, far and above the routines that allowed it to start. It is not the oxygen bottles that got to the top, but the climbers, and they must know the summit they have reached, and once more be congratulated.

And at last the teacher can sit back and survey all the mistakes he made, all the wrong judgments, and all the little things that worked, and, with thought, might be made to work again. Like children, I can't remember without writing, so I scribble all this down, and try to see the meaning. Why don't you, the reader, try this out now. I have chosen to couch this paper in terms of sequence. To check your understanding of what is being said, and to check its worth, why don't you engage in an act of translation, wherein you categorise what has been put as a sequence? It is worth doing, but like all good learning, it is hard. I set no easy goals.

These reflections appeared in Roundtable Reports, V. 7, No. 2, 1981. *John Fines continues his work at the West Sussex Institute of Higher Education. In July 1981, sponsored by the Museum Education Roundtable, Dr. Fines demonstrated his teaching style for teachers and museum professionals in the Washington, D.C. area.*

FINE MUSEUM TEACHING!

Joan Madden, *Chief, Office of Education, National Museum of Natural History, Washington, D.C.*

"What is your idea of heaven?" the visiting professor asked the twelve-year-old girls. Their answers came hesitantly at first, and then with tumbling eagerness. Dr. John Fines listed them on the blackboard as some of us, who listened from a background of Sunday school upbringing, recognized the language of familiar hymns.

". . . a golden kingdom . . . angels and other nice people . . . paradise . . . a better life . . . a place we can worship one God . . . a place where there is no misery . . . it will be jolly . . . a place where the devil can't do his work . . . a place of love and peace . . . everybody would be okay . . . no need to be scared."

Dr. John Fines, a warm and engaging teacher, had started a demonstration museum lesson for about twenty museum educators. He and the children were in a corner of the lecture hall where he perched on the edge of the stage with the girls grouped around him. Aware of the shyness of the children being asked to respond in front of a listening group of adults, he spoke very softly, sometimes even whispering, so that exchanges were not always audible to the audience. Every response elicited a positive reaction and real pleasure. Dr. Fines, as he wrote their phrases on the blackboard, commented, "Ah, that's nice," or simply repeated the phrase with such obvious enjoyment that the originator could not help but understand his approval.

When the board was filled with descriptions of heaven as imagined by the students, Dr. Fines explained that now he and they were going to look at the work of a man who had spent a large part of his life building his image of heaven. Leaving the lecture hall, he led the little group through the halls of the National Museum of American Art to an exhibit. There he asked the students to describe what they saw. Their responses were written down by their "secretaries," the listening adults whom the students had each selected. The secretaries had been firmly told not to instruct, interject or do anything except note what the children reported to them. The children's instructions were to try to see and list what the artist's image of heaven had, or did not have, that was different from their own imagined heaven.

The children reported that they saw furniture covered with aluminum foil, light bulbs and cigarette packs, gold foil on wings. "I see butterflies, stars all made of aluminum foil, and silver plates with something on them. It says 'Fear Not.' " To this observer, the children seemed a bit puzzled, unsure of what their reaction was "supposed to be," and not quite sure how to respond to this unexpected exhibit. They were a bit uncomfortable until Dr. Fines walked back to the lecture hall and had them gathered around him again. Then he released them by asking, "Well, how was that different from the heaven you imagined?"

A long conversation with contributions from most of the girls ensued which culminated when one of the youngsters said, "Our heaven is in the sky. His is in a museum." Murmurs of agreement followed, and then one said, "He doesn't have a God. We had God and angels there. His heaven was empty."

The next step in this lesson was to try to imagine something about the man who made the images of heaven that they had seen on exhibit. How were they to do that? Dr. Fines suggested that they close their eyes and try to imagine the artist, and then tell him what they thought. They talked about the quality of the artist and what he thought about heaven. They said that he was patient, had good hands, was a private sort of trash man, and made heaven as he saw it. The secretaries were asked to write down three sentences that the students dictated to them about the artist. These were read aloud to conclude the lesson.

At no point did the professor give the group any information about the artist. It seemed unnecessary for them to know his name, where and when he lived, what critics thought of his work, who had discovered him, and any other information. Whether this particular group wanted to know any more, or whether they have been motivated to follow up their experience in the gallery with additional study, is an unfinished story.

For those of us who were observing, Dr. Fines' gifted teaching reinforced some principles known but often neglected in museum teaching. *He began where the students were.* He spent really quite a long time, one third of their total museum visit, finding out what they thought or, in a later similar session, discovering what they already knew about the subject, Abraham Lincoln. He established an immediate trusting rapport with the students by expecting the best of them, by accepting without question their proffered comments and by understanding their problems, if they had any.

Dr. Fines suggested in the discussion which followed that the first four or five minutes of a tour (or any educational experience) should be spent "developing trust" between the teacher and the students. "Let them know that you understand that they have had a tiring bus trip, that they may be hungry or hot. Tell them what is ahead, how long the tour will be and what they will be doing. Let them know you are glad to see them, and then spend a little time getting to know them. Ask them their names, or acknowledge that you can read their names from their tags. Ask them what they know about the subject of the museum visit, *and give them plenty of time to reply*. Wait for their answers. Do not supply the answer simply because it is a little slow in coming. They must know that you are interested in them and in what they think."

"Use a great deal of praise." This seemed to me to be one of the most important comments that Dr. Fines made. He said, "Use praise which comes from the heart as much as possible. A child's life is a struggle against failure. Corrections are a day to day occurrence. So success, acceptance is tremendously important." Remember that one of the children said about heaven, "It's a place where everybody is O.K."

"Use eye to eye contact with the child you are addressing. Get close to her. Speak directly to her so she knows that you are really interested in her. Use different voice dynamics . . . speak with authority, or speak in a whisper, as the moment seems to require."

"Laugh with the children and get laughter from them. Get to know how your face looks." He showed us that his mouth turns down in repose, and that he looks angry or out of humor. Inside he feels quite differently, but, in teaching and working with children, he has to remember his down-turned mouth.

"Use movement, shifting toward the children." Dr. Fines talked about physical contact, saying that it is a risk that teachers need to take. A touch on the hand or face, an arm around a shoulder or a pat can communicate warmth and acceptance in an instant. A new person is a threat as well as a gift to children. "What is this person like? Will he like me?" All this has to be established at the outset. It can be with a "We're in this together" attitude. "We're in control, and what we make of this adventure is up to us." For children with Dr. Fines, it seemed irresistible.

Dr. Fines stressed that it is necessary to teach only a very small amount. He suggests limiting strenuously the scope of a lesson. Establish where the students are. This is applicable to preschoolers and adults as well. If they are to be involved in learning, it has to be in small bits. Consider over how long a time you have accumulated knowledge about your museum subject. It is utterly impossible to expect that any students can assimilate in an hour or two what it has taken you years to learn. Think back to your first steps. How did you get interested? If you are successful in your introduction, the students will go farther. If you give them a bad case of mental indigestion, they will probably never want to come back to a museum or gallery.

Dr. Fines commented along the way that he really liked to have children for a week—ninety minutes in a museum was a terribly short time. One of the examples of his teaching (he called it a point of view, not a technique) was of teaching eleven-year-olds about the town of Chichester in Roman times. He had the youngsters for four days, and he had his university students both learning and assisting with the class. He evolved a wonderful scenario with a hungry ghost and invisible walls. His lecture audience all wished that they could have been part of the class. They wanted to know more about Roman Chichester, which is just what he intended in his teaching.

But how does this apply to our teaching in a museum? Classes usually are able to spend not more than two hours on a field trip, and often the time is limited to not more than one hour. There is little or no control over what happens before and after the tour except insofar as the museum experience affects the teacher's own plans. Where museum teachers can make a difference is during the time spent with them in the museum.

The point at which museum teachers have the greatest control is in the choice of the subject—what will be taught? Dr. Fines tells us that his point of view is applicable to any subject, in any setting. What is important is *what is already known to the students*.

In the process of planning "museum lessons," the educator needs always to keep in mind what the objective of the session is. From student responses, those which lead toward accomplishing the objective can be chosen, but there is always the possibility that something else exciting may happen. Can you be ready for this? If the goal is for the students to understand something, can you use as a test the device of having pairs of them write three sentences which are later read to the rest of the class?

The most important point made by Dr. Fines, both in his lecture and in his demonstration teaching, was the effectiveness of slowing down the process of learning. He attempted to do only one very small portion of a larger lesson during the ninety minutes. In a way, his accomplishment was to get the students *ready* to learn something through their own efforts. Are we, as museum educators, willing to revise our goals so that we offer a very small appetizer instead of an eighteen-course banquet?

This workshop review appeared in Roundtable Reports, *V. 7, No. 2, 1981. Joan Madden continues at the National Museum of Natural History.*

MAKING THE MOVE

A Seminar Offered by* Elaine Heumann Gurian*, Director, Exhibit Center, Children's Museum, Boston, Massachusetts

Diane M. Buck, Carole J. Buschmann, France Champagne, Arlene R. Chinitz, Barbara Henry *and* Ronald W. Wogaman
Graduate students in the George Washington University, Museum Education Program, Washington, D.C., 1979-1980

To understand Elaine Gurian and what she has to say about museum education it is useful to know the route by which she arrived at her current position at the Boston Children's Museum. "You can't get here the way I did," Gurian announced. . . . Her first experience as an educator was as a mother. Raising children, she feels, has been one of the best possible preparations for a career in education.

Gurian sought official credentials in education when she discovered that her art history degree from a liberal arts college left her ill-prepared to earn a living. She turned to the State College at Boston, where she earned a master's degree in elementary education with a specialization in art. She had always liked children and viewed teaching as a potentially powerful role. Gurian looks back on her years as an art specialist for the elementary grades as excellent preparation for being a museum educator. Not only did it familiarize her with the learning processes and intellectual development of children, it also enabled her to evaluate the museum experience from the perspective of a classroom teacher. She saw that teachers were having bad museum experiences, yet were unable to do anything to remedy the situation. It was no one's fault; it was just the way the system worked. Now, as part of that system, Gurian can smooth relations between museums and schools and can create an environment more conducive to successful school visits.

At the Children's Museum, Gurian has been able to put her vision of museum education into action. Although the museum ostensibly caters to the interests and abilities of young people, it has tremendous appeal for adults. Family groups make up a significant portion of the museum's audience. Parents become as enthusiastically involved as their offspring. It is that cross-generational appeal and the heavy emphasis on participatory exhibits which make the Children's Museum a people museum.

The process by which the Children's Museum develops its exhibits reflects a genuine desire to meet the needs of its audience. "It takes a certain kind of arrogance," says Gurian, "to do an exhibit for somebody without checking it out with them." Too often curators and exhibit designers fail to seek the advice or opinions from those people for whom the exhibit is being designed—the museum audience. This is not the case at the Children's Museum. Exhibits, which usually spring from a "personal passion" of a staff member, are only beginning their evolutionary process when they first appear in the Exhibit Center. Unlike most displays which, once set in place, never change, exhibits at the Children's Museum constantly undergo evaluation and modification.

Gurian believes in an "anecdotal" or "visceral" approach to exhibit evaluation. Staff members make a concerted effort to observe and to overhear the comments of visitors in the exhibit area. Patterns which become apparent from this informal evaluation are then used in revising the exhibits. In the past, the Children's Museum has closed for one month of every year. At this time all labels come down to be re-written and exhibits are altered in accordance with what has been learned from the previous eleven months of observation.

Gurian sounded a cautionary note about the impact of exhibits. Potentially sensitive exhibits, which may present a single viewpoint rather than conflicting sides of an issue, should be signed, Gurian maintains. Exhibits too frequently are presented as fact, handed down from some unidentified higher authority.

Gurian also feels strongly that museums must cultivate the participation of various segments of the community in developing exhibits which deal with sensitive issues. Native Americans, for instance, objected to a display at the Children's Museum which presented only past Indian lifestyles. A Native American advisory board was formed which was instrumental in mounting a new exhibit reflecting contemporary Indian life. Good community relations and the establishment of such advisory boards require considerable time and patience, yet Gurian believes the effort is worthwhile.

A major objective of the Children's Museum is to demystify the complexities of everyday life. "How does television work?" "What can computers do?" Exhibits not only illustrate how these devices operate, they invite the visitor to take an active part in their operation. For instance, children are encouraged to appear on the museum's "television station" WKID. They sit behind the studio desk, handle the appropriate props and are able to see themselves on a monitor.

The principle behind such participatory exhibits is what Gurian calls "experiential learning." The museum provides the visitor with the opportunity for "landmark learning," initial experiences upon which subsequent learning is based. It is the first time one sees a giraffe, a Jackson Pollock, or a rocket that its impact is felt—first-level learning occurs. Second-level learning, providing a deeper understanding of the object, follows when the individual seeks additional information through a variety of sources.

The organization of the Children's Museum corresponds to these levels of learning. The Exhibit Center provides landmark learning, catching the visitor's interest and creating the desire to delve deeper. The Resource Center provides materials and programs through which the visitor may learn more through self-motivated second-level learning.

Gurian sees museums as places where the visitor can mentally collect little bits of information and snippets of experience to be built upon at any time later in life. She commented that the success of a museum visit cannot truly be evaluated until twenty years later.

Accordingly, Gurian strongly deplores the view of museums as mere adjuncts to schools. Museums and schools should serve as siblings in the educational process, providing separate and different learning experiences. Gurian does not believe that the museum should attempt to replicate a classroom-learning situation. Instead, the museum should rely upon its inherent qualities to provide a unique learning experience. Therefore, museum programs need not be primarily didactic, nor must a series of visits be more valuable than one visit. Regardless of what happens at the museum, Gurian believes a visit will be a valuable learning experience.

Elaine's Tips for Museum Educators

1. Understand group interaction in order to guide a group in productive directions.
2. Know how to run a meeting.
3. Provide an atmosphere conducive to open communication within the staff.
4. Be competent at grantsmanship.
5. Know your own job limitations and the expectations others have of you.
6. Demonstrate professionalism in all museum situations.
7. Realize that the buck stops with you and that you must be able to accept the anger and frustration of members of the staff.
8. Maintain a catalogue of all interpretive and exhibit techniques observed—even hardware—for future reference.
9. Cultivate good community relations.
10. Be able to accommodate many different personalities.

This article appeared in Roundtable Reports, *V. 5, No. 3, 1980. The students who researched and wrote this report have graduated and are at work around the world: Diane M. Buck, Milwaukee Art Museum, Milwaukee, WI; Carole J. Buschmann, Denver, CO; France Champagne, Quebec, Canada; Arlene R. Chinitz, Israel Museum, Jerusalem, Israel; Barbara Henry and Ronald W. Wogaman, both at the Oakland Museum, Oakland, CA. Elaine Heumann Gurian continues as Director of the Exhibit Center for the Children's Museum.*

AUDIENCES AS CLIENTS

IDENTIFYING CLIENT NEEDS

Alberta Sebolt George

Museums, like every other institution in our society, thrive to the degree that they make their resources available to a public. An important part of the mission of museums rests in developing strategies to increase access to their unique resources for a broad audience. Considering the diversity of this audience group, such strategies must be designed with "top-of-the-mind" awareness of the clients' interests. The term client, while less comfortable for some, is useful in helping us to strengthen our perception of role. It can assist museum professionals in the process of synthesizing effective procedures for the delivery of cultural services.

Each of the articles in this section focuses on a special interest or a client group that, in fact, enjoys the resources of our institutions in interestingly different ways. During the past decade, as museums have become more analytical about their program objectives, they have focused on the capabilities, interests, and resources of their institutions in tandem with those of their clients in an attempt to enhance the experiences of this audience.

As museums have made the needs of clients a focal point in the planning process, they have (1) built upon the points where audience and museum objectives meet; (2) explored alternative modes of presentation; and (3) designed new experiences and opportunities for a changing world. We cannot ignore the impact on our market of population shifts, demographic changes, a growing mature population, as well as a better educated population in search of lifelong learning.

At the developmental stages of each program plan, staff may find it helpful to apply the concept of venture analysis to assess the potential market within this changing environment. As an after-the-fact assessment, while reading each article, ask yourself these questions: Was an effective program designed to meet the needs of this group? Did the program address and appeal to the needs of the group? Did they collaborate with each other in the planning process? What were the problems each group encountered? Can the program be replicated? Will this increase access and audience participation?

One of the reasons some programs survive the formative stages and others do not is the strength of positive give and take within the service role. Certainly, any institution must understand its mission and avoid compromising its purpose for being. Effective planning that begins with a mission statement, along with a well-defined set of objectives and a realistic consciousness of the purpose we serve, will more likely result in effective programming.

As we reach out to a new public or client group, that audience may well assist us in developing our program opportunity of tomorrow. Without new audiences, museums will face the declining stages of attendance that parallel the changes in the life cycle.

This chapter presents a number of different examples of programs that have been developed for different audiences. If there is any similarity between examples, it is in the recognition of the needs of the marketplace. Coupled with a commitment to strengthening the museum's presentation, each program has emerged without changing the personality of the museum.

COMPEL THEM TO COME IN

Alice P. Kenney, *Director, Museum Access, Delmar, New York*

Many museums which have gone to considerable trouble and expense to comply with Section 504 have been disappointed because they receive few handicapped visitors. A historic house in an eastern city reported no demand at all in several months after it introduced a slide-cassette interpretation of its second story. A plains state museum could not find a single deaf group within 500 miles to enjoy a sign language tour prepared by a summer intern. These museums understandably wonder why, when disabled groups clamor for access, they should have to "go out into the highways and the byways and compel them to come in."

Most disabled persons have been unaccustomed to think of themselves as museum visitors, and instead assume that public places in general are inaccessible. Others, especially those with limited vision or hearing, may not receive information publicized in newspapers or on the radio. Many lack transportation, and those who are cared for by their families, including children and some elderly people, or who live in institutions, may have little opportunity to choose their activities. A considerable proportion have inadequate education or come from social backgrounds in which museum visiting is not a common leisure activity.

Reaching this audience, therefore, requires modification of the premise that a museum's function is merely to display its collection to persons who seek it out for themselves. A first step is to get acquainted with the local handicapped community and agencies which serve it by forming an advisory committee. The vast majority of handicapped visitors now visit with group tours sponsored by these agencies, whose help is invaluable in designing activities to suit their special needs. Individual disabled visitors may be encouraged through appropriate publicity, some thought about their need for transportation, and cooperation with consumer organizations.

The advisory committee should include agency personnel and individuals representing the various types of disabilities: limited mobility, vision, hearing and mental capacity, and also senior citizens. Major museums with large professional education departments, numerous volunteers and highly developed programs may, like the Smithsonian Institution, find such a comprehensive committee very helpful. In smaller museums, however, a committee of ten may overwhelm the one or two staff members in charge of conducting tours for school classes. A local or regional consortium might sponsor general meetings at which member museums could learn of resources and meet people able to help with particular projects.

It is important to secure for this committee members with some previous knowledge of the museum, its activities, and its function in the community. Many rehabilitation personnel know little of museum resources, while handicapped persons who have never visited a museum have little background for recommending changes in its operation. It may be helpful to begin by inquiring whether any staff, board members or volunteers have disabled relatives or friends who would like to participate. But persons who are employed may be unavailable for daytime meetings; others may need transportation and some may be overburdened with similar requests from other organizations.

The museum may also discover that disabled persons who have never served on committees have little idea of what is expected of them. Since they often live in considerable isolation from the everyday stream of normal human contacts, many have little experience functioning in any sort of group. Some, unaccustomed to speaking in public, may be very shy or unsure how to draw connections between their personal observations and issues of general concern. Others may have participated in activist organizations which believe that the only way to get what they want is to reiterate extravagant "non-negotiable demands."

Museum staff therefore need to ask committee members questions they can answer, and must lead the discussion toward relating personal experiences to general policies. A person in a wheelchair can tour the museum and point out obstacles, after which the group can consider effective and inexpensive ways of overcoming those hindrances. A demonstration by a blind member of how he touches a sample artifact may clarify questions about which objects can be made available for this purpose. And sign language conversations with a deaf person can illuminate how difficult it is to communicate abstract ideas and technical terms in that mode.

Agency representatives often have little time to spare from trying to meet the multitudinous needs of far more handicapped persons than they can effectively serve. Their own resources and staff are usually so limited that they cannot consider assisting with fundraising or development of activities requiring extensive investment of time and effort. Those agency representatives who already operate recreation programs may be able to incorporate museum visits or outreach presentations into their existing structure. Interested agencies may be located by a telephone survey or, as one small museum has done, by letters to those listed in the county human services directory.

In response to such a contact, a museum staff member is often invited to visit an agency and meet its clients in their own environment. The director of special services at a major museum observes that a brief slide presentation is often the most effective way of arousing interest among agency personnel. This slide set should show visitors with various disabilities participating with others in guided tours, gallery talks, lectures, films and concerts, as well as activities for handicapped persons. It should not exceed fifteen minutes, since overworked agency staff and handicapped persons with limited background or attention span may be exhausted by too much information.

A pre-visit by an agency staff member and, if possible, a client, is very important in planning smooth running museum visits by groups of disabled persons. They can locate obstacles and demonstrate the logistical difficulties which make such visits more complicated than the usual group tour. Persons in wheelchairs require space to maneuver, members of blind groups must take turns touching each designated object, while retarded groups need more time to take off coats and use the restroom. This is also the time to map out the tour route, identify topics of special interest to the group, and practice any unusual modes of communication.

Everyone concerned learns a great deal from the first tour by a disabled group. One museum found that large groups in wheelchairs should be divided into parties of three or four, each with its own guide, to reduce congestion at the elevators. Another discovered that blind visitors, especially older persons, preferred to touch small objects passed from hand to hand while they sat around a large table in the orientation room. Guides at a historical society realized that even without knowing sign language, they could communicate much to deaf visitors by acting out the uses of antique artifacts.

Museum personnel will also get a better idea of what disabled persons can be expected to gain from their visits. For some retarded visitors, the museum may be primarily an unsheltered environment in which to practice such skills as greeting strangers, behaving suitably in public, listening to others, and responding appropriately when addressed. Yet at one historic site a child thought to be entirely without memory delightedly recognized an object which had impressed him on a visit the year before. Another education curator finds approaches developed with retarded groups helpful in showing school children and other members of new audiences how a museum may be enjoyed.

Reaching handicapped individuals is particularly difficult because their needs vary widely and many live in comparative isolation from normal channels of communication about local activities. Some adults who drive their own cars or use public transportation may appear by themselves, and need no help beyond accessible facilities and suitable orientation. Most, however, like visitors in general, arrive with relatives or friends who expect to provide such assistance as pushing wheelchairs or signing to the deaf person. Museum staff members need only remember to treat these parties like any others, neither avoiding the disabled person nor overwhelming him with overly solicitous offers of help.

Word of mouth is traditionally the best advertising, and museums will quickly discover that some disabled groups have excellent networks of communication among their members. One museum invited a roving reporter from a radio station for blind listeners to interview a visually impaired guest in a tactile exhibit of sculpture. Another publicized sign language tours in newsletters of local associations of and for the deaf. Consumer organizations can also help spread the word, although they are often small, loosely organized, or limited to a particular group like veterans, and many disabled persons do not belong to them.

Developing a handicapped audience is not only an important part of

Section 504 compliance, but a significant aspect of audience development in general. Persons who happen to be disabled may also be members of other groups like ethnic and racial minorities, which have not in the past been frequent museum visitors. Though efforts to reach those groups may support each other, they should not as a rule be combined. The mechanics of conducting a wheelchair tour and interpretation in a foreign language, for example, are each sufficiently complicated that they would overwhelm everyone if initiated at the same time.

All audience development efforts assume that the museum's responsibility to its public goes beyond conserving the collection to interpreting it as part of the common heritage. The many circumstances which are making people more aware of the resources of their own communities present challenges and opportunities to large and small museums. In this situation, disabled citizens have much to give as well as much to receive. It will therefore be well worth the trouble for any museum to make its collection accessible and interpret it so irresistibly that it compels them to come in.

This article appeared in Roundtable Reports, *V. 6, No. 2, 1981. Alice Kenney continues at Museum Access.*

AN AFTERWARD, 1984

Janice Majewski, *Coordinator of Special Education, Office of Elementary and Secondary Education, Smithsonian Institution, Washington, D.C.*

“Compel them to come in? We don't even invite them anymore!” Such is the general attitude of museum staff towards disabled persons these days. With diminishing budgets, museum educators are turning away from developing special programs; and, unfortunately, accessibility for disabled visitors usually involves *special* programs. However, the law—Section 504 of the 1973 Rehabilitation Act—still stands, unchanged after close scrutiny by the Reagan Administration. Therefore, museums that receive federal funding must comply with the law by making their programs and facilities accessible to visitors who have disabilities.

So what's a museum staff member, particularly a museum educator, to do?

The trick is in the design—the design of the program, the exhibition, the building. Don't make a *special* program; but, instead, design every program to be accessible to a broader audience, including disabled members. Or consider optional components that may be added to make your basic program accessible. You will discover, by doing this, that you will improve the end product for your entire audience.

Sound unrealistic? Not at all!

Think about it. What school program would not benefit by comprehensive pre-tour materials or by the input of information through more than one or two of the students' senses? Which exhibition labels would not be more readable with high contrast letter-to-background colors and clear, good-sized type? And what museum highlights tour would not be more effective if the docent slowed her pace slightly and allowed additional time for questions?

Museum educators, don't give up! Disabled visitors don't want to bankrupt your facilities or disrupt your programs; they only want access to them. Many non-disabled visitors will also use these new methods of access. Consider them *all* in your planning—there's a larger audience out there than you think. Everyone will benefit by your new ways of approaching an old problem.

COLONIAL WILLIAMSBURG—A BLACK PERSPECTIVE

Zora Martin, *Director of Education, Anacostia Neighborhood Museum, Smithsonian Institution, Washington, D.C.*

Each year untold numbers of black youngsters visit Colonial Williamsburg in an effort to rediscover the past and to gain new knowledge and understanding of the colonial period. They begin at the Information Center with the viewing of a 36-minute color film, "Williamsburg: The Story of a Patriot," which introduces the viewer to "the basic ideas of freedom forged there." There is no explanation as to why all of the blacks are seated in the balcony of the church. As we look into the faces of the happy, well-fed, well-clothed blacks working in the fields or around the large plantation house, there is nothing to indicate that they are dissatisfied with their status. Later in the film, the children are exposed to some of this country's greatest patriots—George Washington, Thomas Jefferson and Patrick Henry—and their passionate love of freedom and liberty. Unfortunately, the students are not apprised of these men's slave holdings. Nor are they made aware of Patrick Henry's comment that as a slave owner he was "drawn along by the general inconvenience of being without them [slaves]."

In spite of the fact that in the 1760s Williamsburg was nearly half black, blacks who visit Williamsburg today are apt to find the greatest concentration of other blacks in the cafeteria and the restaurants as waiters, waitresses and busboys. On our last visit we saw no black docents or "interpreters." We were previously informed that of the more than 300 hours of study and outside reading done by prospective interpreters only a few hours were devoted to the study of slavery. Perhaps this is why our interpreter told us so little about blacks in colonial Williamsburg.

Unless a teacher is willing to do a great deal of outside reading before taking students to Williamsburg, the chances are that, in spite of the growing number of black craftsmen in evidence, students will gain very little sense of black history from the experience. The Anacostia Neighborhood Museum, therefore, has initiated a program designed to illuminate more of the total historical picture, and to provide a background for those interested in the role of blacks in colonial Williamsburg. To illustrate our contention that our role in history has not been dealt with adequately we have, on occasion, used a filmstrip produced by Colonial Williamsburg, "Plantation Life in Colonial Virginia." Of the filmstrip's 44 frames, only one refers to blacks or slavery.

More importantly, we have taken our videotape equipment and 35 mm cameras to Jamestown and Williamsburg and recreated our own history. After beginning with the 20 blacks brought to Jamestown and sold as indentured servants in 1619, we move to Williamsburg, where we speak of the slave holders of the day, including George Wythe and the owners of Raleigh Tavern. We point out the Raleigh Tavern, more for its infamy as a favorite auction site for the buying and selling of blacks than its fame as an historical structure used for eating, drinking and strategizing by whites.

When we view the Governor's Palace, we tell of the 1775 proclamation of the Fourth Earl of Dunmore, Virginia's last Royal Governor, and his offer of freedom to slaves who would join him against the colonists. We also tell how this act was instrumental in forcing General George Washington to open the ranks of the Continental Army to freed blacks.

As we take a hard look at the "dependencies," where blacks lived behind the large Williamsburg homes, we raise the question as to who was dependent upon whom and why. We wonder why there is no marker in evidence of what many believe to have been the first black church organized in America around 1781. When we view the jail, we talk of the black codes, the double standard of justice, and the cruel and unreasonable punishment given blacks. And, of course, we unfold the stories of the early rebellions which dispel the myth that blacks were subservient, happy and contented in their bondage.

Colonial Williamsburg seeks to recapture in a dynamic way a segment of America's history. The interpretation of the evolution of Williamsburg, as with the traditional history book interpretation of America's growth and development, eliminates the vital contribution of those of African ancestry. A visit to Williamsburg reinforces the antiquated belief of minimal black participation and smiling faces. It is imperative that a true perspective of the people, the time, and the place emerge. In our colonial Williamsburg presentation, we strive to impart to our audiences an appreciation for the life style of the blacks that can later be integrated into the true history of Williamsburg.

This article appeared in Roundtable Reports, *June 1973. Zora Martin Felton continues at the Anacostia Neighborhood Museum.*

AN AFTERWARD, 1984

Zora Martin Felton

When I recently returned to Colonial Williamsburg, ten years after my article appeared in *Roundtable Reports*, my first impression was that little had changed. The Historic Area was mainly as I remembered it, and again there were few blacks within the large crowds of visitors.

The Information Center theatres still showed the film, "Williamsburg: The Story of a Patriot," that even a decade later made me grit my teeth in frustration. After all these years, I thought, Colonial Williamsburg has yet to produce another quality film with all of the glitter and excitement of "Patriot" to tell the story of *all* of its early residents.

So much for the film. On the positive side, I saw a good assortment of books on black life available in the Center. I also noted that blacks were present in far greater numbers and in a wider variety of roles than ten years ago. They were performing every task from engaging in scholarly research to presenting daytime and evening programs. I took the two-hour walking tour, "The Other Half," and gained a comprehensive (though expensive for families: $6.00/$3.00) look at the role and impact of early blacks in Williamsburg.

The winds of change continue to stir—in the staff discussions about how to improve the interpretation of black life and how to increase black visitation, in the educational publications, and in the vastly improved training programs. The continued good leadership and commitment point the way to many more positive changes, including the film that will be the real turning point in the struggle to provide the one powerfully accurate, historical frame of reference for all visitors.

Dennis A. O'Toole

Zora Martin Felton came to Colonial Williamsburg ten years ago and found the black perspective missing from interpretation of the restored colonial capital. She wasn't mistaken. What was, by 1775, a majority of Williamsburg's population was excluded materially and verbally from the recounting of the town's history a decade ago.

Today this situation has been amended, though not transformed. Training courses and materials for interpreters now emphasize the black experience far more than in the past, and a new black history "source book" is being written by the research department. A special tour, "Williamsburg: The Other Half," was introduced in the summer of 1981 and continues to be offered to visitors during the summer months and weekends spring and fall. A program of Afro-American music and a historical drama titled "African Traditions," a specially ticketed evening program, have been staples of the summer schedule since 1981. A black programs manager has been hired and is at work designing additional educational programs interpreting the black experience. And an explanatory sign at the site of the First Baptist Church, a black congregation tracing its origins to 1776, was installed in the fall of 1983.

But the Foundation regards these as only first steps, and small ones at that, toward the ultimate goal of fully integrating the story of Williamsburg's and tidewater Virginia's black residents into interpretation in the Historic Area and at Carter's Grove plantation. This goal is more difficult to attain, and far more important as well, than the narrow programmatic goals which have been set and attained so far. A second decade will be needed before Colonial Williamsburg can boast of telling the full story of life in Williamsburg—the life of *all* its people—during the years when a new society, a new culture, a new multi-ethnic, distinctively American nation took shape.

Dennis A. O'Toole is Vice President for Historic Area Programs and Operations of Colonial Williamsburg, Virginia.

THE ADULT TOUR DILEMMA

Adrienne Horn, ***Project Director, AAM Education Committee, Lifelong Learning Seminars, San Francisco, California***

Murphy's Law of Research states that "sufficient research will always confirm your own opinions." Of course, research often does confirm what one suspects, but it presumably does so in an orderly and scientific manner. My own research undertaking on adult education and the museum experience first occurred to me when I began to question which alternatives to the traditional docent lecture tour would be appropriate for adults, and what would be the most effective touring technique to use with them?

I decided to conduct an experimental research study at the California Palace of the Legion of Honor to compare the effectiveness of the lecture method with an inquiry/discussion method. I chose inquiry/discussion as an alternative for adult tours because I felt it would provide visitors with an increased opportunity for enjoying and understanding art. The hypothesis was that visitors would become more actively involved in thinking about and discussing the works of art to which they were exposed.

In reviewing the literature on adult education and museum education prior to conducting my research, I found no published studies concerning teaching methods used for museum tours with adults. However, various research studies on teaching methods with adults in the structured environment of a classroom pointed out that inquiry and discussion are effective techniques for developing concepts, for attaining mastery of subject matter, and for producing attitude changes. Nevertheless, many museum professionals and docents continue to use lecture-type tours because of a conviction that alternative methods, like inquiry, discussion, and improvisation, will not communicate enough information about the works of art.

A visitor survey, *The Museum and the Canadian Public*, reported on visitor attitudes about the museum experience. Wanting to learn and wanting to enjoy oneself were listed respectively, as the most frequent reasons for attendance at museums. This suggests that the public wants the museum to provide an enjoyable learning experience. The visitors also described themselves as active people who did not expect to be passive when visiting a museum.

The Canadian survey is one of a number of studies that have characterized the museum visitor as eager to participate in the museum experience. There is no doubt that docents, as volunteer museum educators, have helped museums to respond to this heightened public interest by providing the personal link between the visitors and the work of art. Nevertheless, museum education departments have tended to place more emphasis on tours for school children, ranging from conventional lecture tours to creative looking activities and studio art experiences coordinated with docent gallery tours. Docent training in touring techniques for adults is often limited to the traditional lecture and, therefore, docent tours for adults, in contrast to tours for children, still depend primarily on that technique.

Let me define some of my terminology: Lecture is a method for giving a tour in which the docent gives an oral presentation of facts about selected objects in the museum galleries. The inquiry/discussion method, on the other hand, is a museum tour in which the visitors' own observations become a means for discovering ideas and relationships about the object. The docent becomes the questioner, intermittently giving background information or illuminating facts and involving the group of visitors in a discussion. Providing a more enjoyable learning experience meant in the study a measurable increase in the adult's enjoyment during a museum tour as determined by analyzing his responses to a post-tour questionnaire.

The first phase of my project was the selection and training of the docents who would be participating in the study. The selection was based on recommendations from the education department, interviews, and availability of the docents during a twelve-week period: six weeks for training and six weeks for conducting the study. The ten docents selected for the project had been working as docents for approximately seven to ten years and had been predominantly using the traditional lecture method during adult tours.

The docents were divided into two teams of five docents each. Those on the Lecture Team were individuals who indicated a preference for working with the more conventional method, while docents selected for the Inquiry/Discussion Team were those who expressed an interest in learning a new method. Each docent used one touring method so as to minimize personal bias for one method over another. I wanted the docents to be fully committed to the method they were to use during the experiment.

Indeed, care was taken in the experimental design to control as many variables as possible: tours were kept as similar as possible. Both teams used the same objects of art and the same tour objectives; only the methodology differed. The Lecture Team was required to memorize the tour script in order to limit variations in the individual presentation. At no time could the docents deviate from the planned tour. Except at the tour's end, the docents were instructed not to ask questions of the visitors. These and other features of the preparation of the Lecture Team resulted in a traditional lecture-type tour similar to that given adults in most art museums.

Training for the Inquiry/Discussion Team concentrated on conducting an inquiry/discussion tour, establishing the appropriate psychological tone throughout the tour, and learning questioning strategies. The script for the inquiry/discussion docents was more like a guide with capsuled information and questions about each painting than the narrative to be memorized by the lecture team. The inquiry/discussion docent learned to use the tour outline as the framework for guiding visitors from painting to painting. Drawing on visitor responses and following them to their conclusions without destroying the continuity of the tour was emphasized as the essence of the inquiry/discussion technique.

To test my hypothesis, every day for six weeks casual adult visitors to the museum were exposed to either a lecture or an inquiry/discussion tour depending on which happened to be offered on a particular day. I was interested in measuring the amount of enjoyment experienced by the adult visitor on a docent tour and whether that figure was related to the docent's touring technique. The study's sample audience were visitors to the California Palace of the Legion of Honor who voluntarily took the daily scheduled tour. The tour groups were not preselected nor did they know they were being studied. Following the tour, visitors were asked to complete a brief questionnaire that was convenient to administer to a group and that allowed visitor anonymity. Brevity was important so as not to detain the visitors more than three to five minutes following the tour.

The questionnaire was divided into two sections. In the first section, visitors rated their level of enjoyment on a rating scale of five levels from "very enjoyable" to "very unenjoyable" in response to nine statements in the following areas:

- museum tours in general
- instructional style of museum tours
- visitor interaction with the docent
- visitor interaction with other visitors in the tour group

The second section collected demographic information to determine the make-up of visitor sample and to reveal any correlations between demographic variables and enjoyment levels.

In order to encourage honest and objective responses to the questionnaire and to reduce visitor reluctance to give ratings at the low end of the attitudinal scale, the docent made a statement at the conclusion of each tour. She told visitors that their ratings would not reflect on the ability of the individual docent and, furthermore, that their reactions to the tour would assist the museum with planning future tours and training new docents.

Eighty-four percent of the visitors taking tours completed the questionnaire. The questionnaire data were examined statistically to determine whether or not any significant difference was achieved by exposing half of the visitors to the lecture method and half of the visitors to the inquiry/discussion method. Since the demographic findings indicated that the sample populations of the two groups proved to be similar, it stood to reason that any difference in their levels of enjoyment was the result of the touring methods used, assuming equally effective docents.

Several other variables were also examined. When comparing weekday versus weekend visitor responses to the tours, no major differences were found. It was surprising to me that the size of the tour group did not produce any major response differences in either lecture or inquiry/discussion group. (My personal observations would have indicated, for example, that the inquiry/discussion method worked best with groups of ten or fewer people, while the lecture method appeared more successful with larger groups.) But the greatest variable of all was the individual docent.

Although efforts were made to control as many variables as possible, differences did exist from tour to tour and from docent to docent. From my own observations, the performances of the docents and the groups on inquiry/discussion tours were less consistent than those on lecture tours. This stemmed from the fact that the lecture tour did not vary much in content or group response, while the inquiry/discussion tour had more unpredictable or uncontrollable factors, including the docent's abilities as a discussion leader on a given day and the "chemistry" within the group taking a particular tour. Although group composition made little difference in the lecture tour, it had clearly a great deal of influence on the inquiry/discussion tour.

However, interestingly enough, the statistical results indicated that sixty percent of all visitors perceived the docents in the same manner. Not only that, but three out of five docents on each team received remarkably uniform questionnaire responses from visitors. The other four docents had either higher or lower responses which I, as an on-the-scene observer, attribute to their personalities.

What are the implications of this study? Obviously, the ability of the docent is one of the most important factors in museum tours. That ability is, to some extent, a function of proper training, supervision, and evaluation. Since the docent's knowledge and method of presentation are the primary factors in achieving successful tours, an in-depth examination needs to be made in all museums to assess docent training and evaluation and the effects of these procedures on docent tours.

Secondly, although the results of this study certainly indicate that the inquiry/discussion method may be more enjoyable when used on a tour for adults, those individuals taking lecture tours also enjoyed their experience. This finding suggests that it may be a good idea to include a variety of communication methods in docent training so that docents become equipped to use the method appropriate for the needs of different adult groups.

Finally, despite the limitations and difficulties involved in conducting attitudinal research, museums must proceed with such studies, because there is so little known about the effectiveness of museum education programs, especially for adults. Further investigation should be undertaken in museums to study the adult visitors' needs and attitudes and the way the adult visitor learns in the museum environment. Museum research on all levels is critically important if museums are to be defined as educational institutions.

This summary of findings appeared in Roundtable Reports, *V. 4, No. 4, 1979. A review of related literature also appeared in that issue. Adrienne Horn now handles special projects for the Center for Museum Studies, John F. Kennedy University in San Francisco.*

LEARNING IN MUSEUMS

A Seminar Offered by Alberta P. Sebolt, Director of Museum Education, Old Sturbridge Village, Sturbridge, Massachusetts

Michael W. Berry, Stacey A. Bredhoff, Jody C. De Voll, Kay O. Fowler, Elizabeth R. Gilbert, Kathryn R. McHugh and Mary S. Ward

Graduate students in the George Washington University, Museum Education Program, Washington, D.C., 1979-1980.

At Old Sturbridge Willage, an 1830s farm community, history lives through the activities of costumed interpreters. "Kids can roll through the museum like a marble and their teacher will say, 'I *did* Old Sturbridge Village,' " Alberta Sebolt recounts. But she goes on to add, "As museum educators we need to learn more about learning."

Museums give factual information for the visitors to assimilate as knowledge. Sebolt believes that the museum educator's task is to organize effective learning experiences for a diverse audience. To do so, we need to know more about the objectives, motives, background and age-group characteristics of our visitors. The experiences of student visitors can be enriched by structuring the visit as a "field study" rather than as a field trip. The term "field study" is used at Old Sturbridge Village to describe an educational experience which includes focused preparation, clear objectives and classroom follow-up for students. The design of the field study demonstrates Old Sturbridge Village's commitment to functioning as an educational environment.

Sebolt stressed that the environment for learning can be improved by using active interpretation techniques. By inviting questions and creating an atmosphere for response, museum educators encourage visitors to interact with the museum's collections. One technique helps students learn to "read" a room by identifying its components and hypothesizing about the significance of the room. Another popular technique uses public records, diaries and reproduced clothing to inspire students to take on historic identities and to role play.

The key to successful museum education programming for school groups, Sebolt insists, is building teacher-museum collaboratives. The degree to which museum educators and teachers understand the goals both have in mind affects the degree to which the students will understand the objectives of their museum visit. Effective communication then is essential for building positive teacher-museum collaboratives.

There are many strategies for improving this communication. Sebolt suggests that museum educators read the publications teachers read, like *American Education*, *Social Education* and *Educational Leadership*. Participation in professional and teacher organizations can help museum educators to acquaint teachers with the programs offered by their institutions, serving to remind teachers that museums are in the "teaching business" just as much as schools are. Old Sturbridge Village has hosted receptions and conferences for teacher organizations, allowing informal contact. Teachers can also be asked to contribute to program development by evaluating and reviewing materials for the museum education staff. They can be invited to take their sabbaticals at museums. The teacher's school pays his/her salary while the teacher works on a special project for the museum. Several teachers have spent their sabbaticals at Old Sturbridge Village and the staff has found it rewarding. In addition, school administrators and their families can be feted at an all-day party with hands-on activities and tours.

More formally, the Old Sturbridge Village Teacher Training Program offers workshops which award graduate credit. Although an individual may register, teachers are encouraged to have their school districts sponsor them through the Institutional Membership Program at the cost of $800 per teacher. The benefits of each membership—including a stipend or graduate credit for the teacher, a materials budget, a discount for educational publications, student admissions to the museum and museum staff visits to the classroom—return most of the money to the school district in museum services.

A successful collaborative between the school and museum requires teachers and museum staff to share objectives, to set guidelines and timelines and to make evaluations and revisions together. Sebolt concludes, "Building a collaborative is like building a friendship, so nurture it."

STUDENTS INTERVIEW ALBERTA SEBOLT

Q: *How did you get started at Old Sturbridge Village?*
A: In 1968, I became Project Director of the Resource Learning Laboratory of the Sturbridge, Massachusetts, public schools. The project's objective was to train teachers to utilize the community as an educational resource. Old Sturbridge Village was one such resource. When the project ended, the Village staff requested the development of a second, similar project implemented on an expanded scale. When the new Three Dimensional Project was approved, I moved to the Village and worked for two more years as the director of that project. At about this time, the staff at the Village became interested in developing an education program that would go beyond the "show and tell approach" that characterized its sixties programming. They wanted to link the museum with the schools in their area. In 1973, I became a part of that effort as Director of Teacher Education Programs, and, in 1974, I became Director of Museum Education.
Q: *How can we learn to work with classroom teachers?*
A: It's the same as learning to work with any other group of people. You begin to learn where teachers are coming from. Oftentimes, we expect teachers to spend a lot of time getting to know the museum . . . and the museum staff simply does not spend an equal amount of time within the school environment. Or, when they do, they go in for one shot . . . and come out very critical. It's not enough to go in just to observe. You must commit yourself. Whether it's student teaching or a collaborative project, you must develop a relationship with the teacher. But I find that museum staff tend to be resentful of teachers who do not avail themselves of the museum's resources. Their attitude is, "What's wrong with them? We've got this here." As for those who do come to

the museum, how much time can the teacher devote to preparation for a two to three hour visit that represents but a small fraction of the 180 day school year? The teacher simply can't spend the time that the museum would like. One teacher said to me, "Your staff expects a marriage out of this. All I want is a visit." We need to be understanding of teachers and the constraints on their time.

Q: *How do you find who is most receptive in the school system?*

A: Number one, it's talking to people and asking them. Some contacts will surface if school personnel are invited to a reception; others can be identified by the teachers themselves. Sometimes you need to search for a while until you find the right person.

Q: *How do you sell your program?*

A: We do not advertise educational programs through the media, although the museum has spots on TV. That's not the way the school systems buy into things. They're used to a catalogue. . . . We have a catalogue of our educational materials and a program announcement; that has worked rather well. . . . But probably the most successful promotion is going to teachers' conferences and participating and presenting . . . and simply staying friends with the profession. I think another important thing is that we have teachers on our staff. We bring classroom teachers in during the summer for special workshop sessions as teacher consultants. They are paid a nominal amount of money . . . but for them it's the status. . . .

Q: *Do you get the same teachers from the same schools?*

A: The city of Worcester has been with us since 1971 so we do have a small core from that area, but if you have a small town with one school you can pretty soon exhaust yourself. A principal said to me last year, "Alberta, all I've got left is the kindergarten." So what we've done is to expand our mailing list to make people aware. For example, we collaborated with a state historic league and sent information on our teacher workshops to everyone on its mailing list. This has led to increased participation from formerly unrepresented areas and to the expansion of our mailing list. So taking a look at your mailing list is an important thing. If you're talking to museums, big or small, most of them will mention the mailing list as the most significant factor affecting all their programs, even the big museums in New York.

Q: *Why has Sturbridge been so successful in building a relationship with the schools?*

A: I suppose a significant factor is that both Peter O'Connell, who is the Assistant Director, and I came out of the field of education . . . and that we already had some contacts. . . . We knew teachers in the local school systems and understood the language of education. Again, we have played a major role in teachers' organizations. One great success was a Sunday when we invited school administrators and their families to spend the day at the Village. We offered tours, hands-on activities and refreshments. In a sense, we've opened up the door to conversation with many new people. . . . The other thing is the degree to which you can be candid in the planning stages.

Q: *What do teachers want?*

A: Like all adult visitors, teachers are intrigued by the museum's collection. They like to go behind-the-scenes and get to know the museum. Another thing they want is recognition. They're very fearful . . . because they feel put down by museums in many cases . . . . They feel that museum professionals do not share their concerns. Due to the differences in backgrounds and objectives, they are often afraid to ask questions. To complicate matters, museum personnel are often high-powered people who may "run over" teachers without ever realizing what they have done. Understandably, teachers in turn feel uncomfortable. Teachers are generally not high-powered. They come out of a system that has never trained them to be high-powered. The whole world is their school board, and they're vulnerable. Whereas museum personnel, according to my observations, consist of people who are outgoing and creative. They're going to change the whole world . . . and they don't confront in their careers the same kinds of constraints that classroom teachers do. The first time you walk in a classroom you've met a constraint. In fact, you've probably met thirty.

A further thing teachers want is materials. Teachers are basically "hoarders." They want materials even if they're going on the shelf for a while. Eventually they'll use them. . . .

Q: *How large is your education staff?*

A: We have some twenty museum teachers who work part-time two to four days a week. We also have four lead teachers who are salaried as beginning-level professionals. In addition, there are six other full-time staff members who work on general operations, materials development, teacher training and special needs programs. Then there are two secretaries and two clerical assistants who work in the scheduling office. . . .

Q: *How do you look at museum education as a profession?*

A: I'm always amazed when I see a title that says "curator of education" because there's almost a dichotomy in those words. I prefer titles that are common to the educational system, like "coordinator" and "director."

I see many people trained in a content area and not trained in a methodology. The methodology is, nonetheless, important: if you're going into museum education, you can't just become a specialist in a content area. You also need to master the process of teaching and learning. This means developing a skill in presenting what you know. . . . Until museum educators develop communication skills equal to their subject-matter expertise, the profession will continue to have problems.

This article appeared in Roundtable Reports, *V. 5, No. 3, 1980. The students who researched and wrote this report have graduated and are at work in a variety of places: Michael W. Berry, D.A.R. Museum, Washington, D C ; Stacey A. Bredhoff, Washington, D C ; Jody C. De Voll, American Institute for Conservation of Historic and Artistic Works, Washington, D C ; Kay O. Fowler, Richmond, VA; Elizabeth R. Gilbert, Oakland, MD; Kathryn R. McHugh, Massachusetts Institute of Technology, Cambridge, MA; and Mary S. Ward, Montgomery Museum of Fine Arts, Montgomery, AL. Alberta Sebolt George continues at Old Sturbridge Village as Vice President for Museum Programs.*

MAY THE FORCE BE WITH YOU

Peter O'Connell, *Assistant Director of Museum Education, Old Sturbridge Village, Sturbridge, Massachusetts*

Fact: *Only 10% or less of all student visitors to museums are high school students.*

Perception #1: *The relatively low percentage of high school students is primarily the fault of high school teachers and the structure of the high school curriculum. The teachers didn't have museum methods in their teacher preparation courses and don't realize the potential of museums for high school students. In addition, most high school students participate in afterschool activities or work, making the scheduling of a trip difficult. The curriculum is broken into short timeblocks and teachers resent it when their students are away all day.*

Perception #2: *Museums have only themselves to blame. Teenagers think museums are boring places full of old things you can't touch and old people who talk too much and don't like kids anyway. Museum programs for kids are developed as an afterthought; most programs and exhibits aren't designed with the interests of kids in mind and there is little flexibility to meet the needs of kids or teachers. So kids walk around, have a crummy time and get tired.*

Each of the perceptions above is true to some extent. Even if museum programs are now designed with teenagers and for teenagers, the old perception lives on in the minds of the teachers and the students. Many museum staff members try to be thoroughly modern in their views of teenagers, but lurking within there is a stereotyped vision of what teenagers *ought* to be like. Teachers or museum people walking around with either of these perceptual blinders on will miss promising overtures from the other. No change will occur. The force will be against them.

The museum educator taking the initiative to develop a more active high school program must carefully examine the museum's past programs from the teenager's point of view. Recent research shows that students perceive the learning process very differently from teachers; teachers may be missing the mark completely with certain approaches to curriculum and teaching. Teenagers can give responsible critiques of our museum programs if we give them good opportunities. But even if our new program is dynamic and works well with experimental groups, we have to sell it to high school teachers *and* kids. Old perceptions die only through new experiences.

In 1977, with support from the National Endowment for the Humanities, the Museum Education Department at Old Sturbridge Village (OSV) embarked on a two-year project to listen to teachers and students and to work with them to develop new programs and materials especially for teenagers. We developed a "model" or ideal program for our museum, an outdoor history museum representing life in New England rural communities around 1830. This model consisted of standard elements, regardless of content areas, such as teacher workshops, student resource materials and activities for classroom use before and after the museum visit, and a range of museum teaching strategies for high school students. While specific content areas and teaching strategies will be relevant only to other outdoor museums, many of the elements and assumptions of the model will apply to any museum. The following case study can best illustrate the basic parts of an ideal high school program.

Case Study: Coming of Age

The teacher received the OSV program announcement describing three basic program topics: Individuals and Cultures: Coming of Age; Technology and Economic Change: Choosing Work and Making a Living; and Citizenship and Democracy: Finding Community. She decided the first topic would help her students best understand everyday life in 1820 and provide a nice change of pace from her study of the Constitution. The program announcement described materials and activities new to the teacher, so she decided to attend a "planning workshop" at the museum a month ahead of her visit.

In the planning workshop, the museum staff gave the teachers census data, inventories, and diaries of contemporary teenagers. Teachers were asked to make observations of life patterns of today's teens and to identify objects that might appear in an exhibit on present day teenage life. A short discussion established a basic set of ideas with which to compare the experiences of teenagers in different times and places: work roles, leisure activities, clothing styles, possessions, courtship patterns, interactions with adults, formal and informal education. The activity also developed familiarity with types of historical resources.

Teachers were then given identities as teenagers living in families in Sturbridge in 1820 based on information taken from census data; they were also given excerpts from diaries, family inventories, letters and other sources appropriate to the age and sex of the teenager they were to investigate. Before asking teachers to examine the data, the museum staff set three tasks for the teachers to "accomplish" by the end of the day:

- gather information about the daily activities, choices and feelings of the persons they were investigating and to compare them with youths living in other *types* of families;
- make a decision about a particular individual or family issue (temperance, work, education, moving west) and discuss it with others in the group;
- identify the effect of various social and economic changes on the activities, choices and perceptions of individuals and families (growth of turnpikes, canals, factory towns, and cities).

Rather than actually *accomplishing* the tasks, however, the teachers understood they were to look at the museum with the tasks as a frame of reference.

Teachers then examined their resources, viewed a movie about agricultural life and visited from three to six sites in the museum appropriate to their roles and family situations. After lunch, teachers met individually with museum staff to discuss ways of using similar approaches with their students. A rough teaching plan was outlined, including specific objectives and activities students would accomplish before, during and after the field trip. The teachers decided which materials to purchase from available packets of resources, slide sets, and study prints; they also identified a tentative teaching sequence.

The process was then implemented by the teacher during the course of a two-week unit. The field trip to Old Sturbridge Village occurred during the middle of the unit allowing adequate time for preparation and follow-up. An important feature was a hands-on activity in the Museum Education Building. Each student completed a written project and participated in class discussions in which they identified the directions of social, economic, and political change in the 1830s and their effects on individuals. . . .

I'd like to propose several principles illustrated by the case study that can guide program development for teenagers in any museum. These principles have been borne out by our experience, but would bear testing and evaluation in other museums.

The first is that we must resist the temptation to treat teenagers like "adults," meaning people like ourselves who love museums and know what can be learned in a museum. We often forget that teenagers can be kids one minute and mature, responsible people the next; instead we expect them to act like grown-ups—"they should know better"—and to attentively absorb the wisdom they need to know. We think that because they are mature, we don't need to involve them in active experiences used with younger kids—role playing, improvisation, hands-on activities. They *should* be able to think analytically, ask good questions and make sense out of exhibits with little staff assistance.

In fact our image of the responsible teenager is unrealistic, and applies primarily to the elite, grade-conscious, college-bound student. If our programs are designed for the mythical ideal teenager, the average teenager will rightly find our programs boring, tiring and irrelevent.

A second principle, derived from the first, is that programs which involve students *personally* and *individually* are more successful than those in which we involve teenagers as an undifferentiated group. Adolescents are self-centered and concerned with who they are, how they look, who their friends are and how they will solve the personal crisis of the moment. When participating in a museum program, teenagers ask questions like:

- What are we doing this for?
- What am I supposed to do?
- Can we go off on our own with friends?
- Is some museum guide going to lecture us all day?
- Where do we eat?

We need to design our programs around strategies that start with a role for individual students, and immediately stimulate interest in the information we have to offer. The process should also suggest a way of getting that information and point to an end product in which the students will use the information in an interesting, informative way.

Thirdly, to stimulate the interests of teenagers, the programs must be organized around human experiences that teenagers find interesting or relevant. Program titles and descriptions should be lively, interesting and include some mention of active experience to counteract the prevailing image of museums as passive places. Rather than focusing on types of transportation and their famous inventors, students are more interested in the *experience* of transportation—speed, going somewhere new, their first bicycle, car or plane ride. Once interested, they will *then* inquire about changes in transportation and the impact on people and towns. Similarly, art museums are more successful when students focus first on the activity in a painting, the personality of the person in a portrait or the social context of the period, before they are asked to address issues of line, color or composition.

Finally, we must acknowledge that we can't do it all by ourselves. We often are worried that unless we teach teenagers the truth, the whole truth and nothing but the truth, we have violated a sacred oath. The "truth" takes longer for students to learn than one hour or one day. We need teacher involvement to have a program at all. The more teacher involvement we have, the greater the potential for the programs.

Without teachers we cram our programs with information, leaving no room for student inquiry, speculation or participation. In most cases, students are with us for too short a time to learn a great deal of information *and* to organize it, use it and make it really meaningful to themselves. If we try to pack it in anyway, most students simply perceive the program as too much talk or too confusing; they turn off.

If we design programs to include the teacher through workshops and through the development of preparatory student materials and follow-up projects, we save for ourselves what we do best. We design stimulating learning experiences around artifacts, documents and paintings and we ask students to explore these materials imaginatively in the context of a longer teaching sequence. In turn, the classroom teacher does what she does best—establish context and make the experience initially relevant before the trip. Afterward, the classroom is a place to organize, to digest, to compare with personal experiences and to relate the lessons learned in the museum to the experiences of people in other times and places.

The effort and expense of developing high school programs with teachers pay high dividends. Well-prepared teenagers are the best visitors; they ask interesting questions and are able to carry on a conversation. Teachers, once involved, build the museum experience into their curriculum; their students, informed by previous classes, look forward to the trip. When that happens, the force is with us.

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NOT EVERY NIGHT IS PROM NIGHT

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"May 7th! We can't go to the museum on that day," the students groaned. "The senior prom is that night!"

The teacher and class exchanged looks of dismay as students catalogued their objections to the field trip: hair appointments to keep, tuxedos and flowers to pick up, party foods to prepare, and of course a few hours of extra sleep. The teacher countered with her own list. She had already made seven phone calls: three to the museum to set a date for the visit, and four to bus companies to compare costs and to reserve a bus for that day. Before calling the museum, she checked the school and county calendars for conflicts with assemblies, testing schedules, and state or national holidays. She had written a justification for the trip, secured the vice principal's signature of approval, and completed the school field trip approval forms in triplicate, of course. To accomplish all this, she had given up her lunch break and planning periods to wait in the office to use one of the two phones shared by over 100 teachers. It was quite a standoff!

The prom scenario is not unique. Planning a museum field trip for high school students is often frustrating. Even as energetic teachers we find the administrative and logistical problems of planning a trip taxing. Our priorities and those of our students are frequently quite different. Given these realities, many teachers simply refuse to plan educational experiences for their students outside the classroom. And those who continue to offer students alternatives to formal classroom instruction seek only quality museum programs to justify their considerable effort.

To us as teachers what factors make a field trip with high school students an experience worth our efforts? Can we agree on standards of excellence for a museum field trip? Do we know exactly why students are bored and restless in one museum, while excited in another museum? As we exchanged notes on our own museum field trip experiences over the past seven years, we realized that the most satisfying experiences for us and our students are the result of careful pre-visit preparation and sensitive museum program planning. We concluded that teacher and museum educator share equal responsibility for the success of a museum experience for teenage participants.

Careful pre-visit preparation is essential to field trip success. In addition to the administrative chores of planning, teachers should prepare for a museum visit by: 1) carefully selecting a museum program; 2) discussing educational expectations with museum educators; and 3) motivating students for the visit. Cooperation between museum educator and teacher is invaluable in each step of the process. Unfortunately, dialogue between the two is infrequent and often limited to scheduling the field trip date with a stranger on the other end of the phone line.

Teachers should begin by selecting a museum exhibit or program which is appropriate for high school students and which will supplement their curriculum. Teachers often obtain information about museum programs from brochures, county newsletters, other teachers and newspaper listings. This information is usually abbreviated and can be misleading. Through contacting museum educators directly, teachers can avoid a disappointing museum choice. Museum educators can provide teachers with detailed descriptions of their school programs and discuss possible options when teachers inquire.

Museums might consider establishing a regular school contact with a social studies teacher who has planned successful museum visits. The museum could send information to this teacher rather than to the department chairman who is inundated by mail from countless sources. This contact teacher would be more likely to disseminate information about particular museum programs to interested colleagues.

Once a teacher selects a museum program, communication with the museum educator must continue. Questions in their dialogue might include these: Will the exhibit content be an introduction to new material or a review for students? What ability level are the students? Will students have some independent time during the museum program? Can the museum focus on a specific topic which students are studying? Are there special museum rules that students need to know before their visit? A record of this information would aid the docents or museum staff who work directly with the class. Museum educators should inform the teacher of the limitations of the visit. Neither teacher nor museum educator is well served by misinformation.

Students are eager to take a field trip, but they are often more interested in the social, rather than the educational aspect of a museum visit. For this reason, it is important for the teacher to stimulate student interest in the museum content. A teacher who has visited the exhibit and can describe with enthusiasm what students will see can convey this enthusiasm to the students. Museum educators can help teachers stimulate student interest in a variety of ways; especially successful are pre-museum visits to the classroom to involve students in role-playing activities or to show slides. . . .

A conference call to the school by a museum educator is another way to arouse student interest. The conference call system allows the museum educator to talk to an entire class, while students ask questions from a phone unit in the classroom. . . .

The museum provides a unique arena for instruction and offers a wide variety of educational possibilities. Yet, museum programs for high school students are frequently traditional tours and lectures. Programming for high school students could also include role-playing, creative questions and discussions, and hands-on activities.

Furthermore, museum personnel should relate the museum exhibit to activities which are important to teens today. Work experiences, clothing styles, and social activities of earlier times offer interesting sources of comparison. For example, use a portrait as an opportunity to discuss changes in clothing styles, as well as biographical data.

When students return from a museum visit excited and eager to discuss their experiences, the problems of planning seem to diminish. Cooperation between teachers and museum educators in the planning and programming is the key. As a result of careful preparation, teachers will seek new museum experiences and take time to plan such experiences for their students. After all, not every night is prom night!

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TEACHING OBJECTS

A BLUE SPORT COAT AND A STANDARD RING OF SLIDES

Robert Sullivan

Running late again. I'd known about this talk for months. Why hadn't I prepared something? Time erases my best intentions. Thank God for that all-purpose ring of slides and that dark blue sport coat I keep on my office door. It goes with almost anything. Looking down at the variations on the theme of brown I was wearing, I knew I was testing that theory to its limit.

"Artsy, unconcerned with externals, professorial," I deluded myself, "a good image for this presentation."

I tossed these, my scant but dependable, resources into the back seat, and, like a north-seeking needle, I was pointed unavoidably towards Glens Falls and the Adirondack Region P.T.A. dinner meeting.

I mentally scanned my anticipated audience: teachers, district superintendents, principals, parents, children, all the right constituents to persuade.

"I'll open with the integrating-arts-into-general-education material," I plotted, "and engender some guilt with stories that the arts and culture aren't frills and are critical to the development of the whole person. I'll use all the high-energy rhetoric: hands-on education; novel environment phenomena; self-directed learning opportunities; accessing community resources; remedying cultural deprivation; right-brain stimulation; universality of creative potential. For the doubting pragmatists, I'll toss in some statistics about improved reading and math scores after viewing Islamic art."

I practiced some of these salvos to my reflection in the windshield and then relaxed, confident that I was ready and that the audience would be dutifully moved and impressed.

A series of unavoidable pot-holes jolted my comfort. "Pompous fool," my alter ego coiled to strike. "Drugs, discipline, value shifts, broken homes, new math and science mandates, competency testing, the extended school year, eroding tax bases; how are going to wedge cultural education, the arts, museums and libraries onto that agenda?"

At best, the P.T.A. would consume my words like their ill-prepared buffet. "Adequate, nothing memorable, all the expected stuff. A little too much, a little too cold."

Unnerved, my confidence weakened. Maybe museums *are* just frills, desserts; not known for nutrition, only a deserved reward for good behavior. Maybe this "cultural education-is-critical" material is self-serving, naive posturing.

In the midst of this rolling depression, a highway sign flashed green and white, "Saratoga Battlefield, Next Exit." I daydreamed about that raw fall, two hundred years ago when troops stumbled grumbling through dense forests where I now rolled in well-monitored comfort, a mile-a-minute. They had fought over words, as much as property—liberty, justice, human dignity. The roadside sumac snapped me back from the daydreams, each leaf a bright tongue of flame. They huddle so anonymously by the roadside waiting for just this time of year and always seem the first flares of fall. I wondered why. The sun had just set and its failing light basted the bottoms of low flat clouds. "Snow clouds," my grandfather would call them. They were puffed, quilted like a down comforter, pulled lovingly over a dozing child on this chilly fall evening. And those mountains. Outlined in sunset's neon piping, they hunched broad-shouldered and menacing, marching across the horizon. They must have looked this way forever.

All at once, it happened, all-at-once. The history, the fantasy, the natural science, the personal connections, the poetry, the art.

"All-at-once," I whispered. "It's true. People really do experience, perceive the world, all at once. It isn't merely educational jargon. Integration, holistic education—they're not just words. They're the key to what education ought to be all about—self-discovery, self-knowledge."

A personal revelation had occurred, and I couldn't wait to share it. In my anxiety, I left my jacket and slides behind. I fidgeted through the buffet, the business meeting, the thank-yous, and the much-obligeds and then rose to give my testimony.

"All-at-once," I began, "we have to show them how to make this world whole again, how to make the fertile connections and relationships between themselves, ideas and the tangible world around them. We must counteract the rational, scientific, secular, linear prejudice that is fragmenting the world into such small pieces that we are losing sight of it. That's squeezing all the mystery and awe out of the world. We must encourage that sense of wonder that recognizes an order that always lies just beyond our grasp. We can't bundle the arts, the sciences and humanities into neat packages and classrooms held hostage by clocks. We have to remember that the target of education must be the individual. All education is a solitary experience. It is our duty to create integrated individuals who are self-aware and not merely self-expressive; to create intelligent individuals who understand how their perceptions are conditioned and who can break free of that conditioning; to create sensitive individuals conscious of their relationship to others, to ideas, to poetry, to nature; to create inquisitive, thoughtful, daring individuals who seek things of lasting value and reject stale slogans, prepared ideals and imposed patterns of thinking; to create intelligent teachers who are self-aware, caring and concerned co-learners with their students. This intelligence is far more important than any passing method of education.

"All-at-once," I repeated, "schools, museums, libraries, families, must work all at once to make connections, between people, ideas and nature; to make the world and the individual whole; to counterbalance the conditioning of the secular, linear thought patterning. We must generate questions and thoughtful inquiry and not promote predetermined answers and conditioned conclusions."

My words ricocheted off the back wall of that silent chamber and slapped me back to my senses. What had I done? Why did I stray from that comfortable script and safe slides? Testimony, personal revelations, cherished beliefs, personal philosophy, basic functions and responsibilities of education to society—does it really mean anything? Is it pragmatic? Can we keep our principles and actions in line? I don't know if they bought it.

Polite applause faded quickly and I was on the road again. The standard ring of slides, the always acceptable dark blue coat were comfortable and secure in the back seat where I tossed them. I keep them there, still, to warn me.

OBJECT KNOWLEDGE: EVERY MUSEUM VISITOR AN INTERPRETER

Thomas J. Schlereth, ***Director of Graduate Studies, Department of American Studies, University of Notre Dame, Notre Dame, Indiana***

My brief for museum literacy begins with a personal definition of the museum. I would define the museum as a site where people learn about people (including themselves) primarily through objects that people have made, used, or found meaningful.

In my definition there are several commonplace but crucial ideas. The first is the emphasis on people. In my judgment, a museum is conceived of by people, exists for people, and is made up of people—people who staff its departments, people who visit its exhibitions, and people whose skill and spirit are still embedded in its collections.

Museums, I also believe, exist primarily to promote learning, a claim bolstered by the *Oxford English Dictionary's* acknowledgment that the earliest—although now admittedly obscured—meaning of museum was "scholar's library" or "study for learning."

But I also cannot conceive of a museum without objects; they are crucial to the institution's basic identity. Since the subject of my argument here is the object, let me propose that we consider the subject of the object in two ways. The first is the way we normally think of them in a museum, that is, as museum collections or *museum objects*. The second way, which we might label the *museum-as-object*, would view the entire museum site as an intriguing assemblage of material culture evidence also worthy of interpretation. Museum visitors ought to have the opportunity to learn more about both types of objects and museums ought to help foster such object knowledge. Therefore I want to suggest a few ways that museums might assist visitors in acquiring or expanding a special type of literacy that would enable them to read both the museum's *collections* and the museum's *context* with greater interest and insight. Such an acumen might also help visitors look, and look again, at the universe of objects—the domain of material culture, that part of the physical world that we have shaped according to a culturally dictated plan—in an entirely new and different perspective (Deetz 1977).

In suggesting how we might think about this question, I would first like to review some museum activities that I have observed, primarily in American history museums, where the museum has encouraged the average visitor to become his or her own interpreter. . . . My second category is composed largely of my own speculations, offered as a few ideas that might be implemented in making museums centers for object study. I would appreciate hearing of your own fantasies.

AN ECLECTIC SAMPLER OF IDEAS WORTH TRYING

How have museums taught visitors to read objects? One recent instance has been the development of an 18,000 square-foot open study collection of nineteenth-century material culture in the Margaret Woodbury Strong Museum in Rochester, New York. In an area eventually to contain 20,000 objects, there are to be several reference data stations containing the files of computer-generated index cards that will provide visitors, amateur and connoisseur alike, with the exact research data found within the museum's own catalog about each of those objects (Alderson 1982). With such institutional resources, the visitor can almost take an introductory course in museum methodology and basic material culture research. Questions of provenance, typology, nomenclature, and registration techniques can all be explored.

Since the arrangement of objects in the Strong's study collection will be systematic rather than thematic, logical rather than historical, the visitor will be able to compare this method of object display with other exhibition strategies employed elsewhere in the museum. The study collection, primarily a creation of the curatorial staff, can be compared with the thematic galleries, a creation of exhibit designers. In addition to learning from the often different ways in which curators and designers work at understanding objects, the visitor can formulate his own classification systems in order to satisfy his own research questions and intellectual curiosity. By becoming his own typologist, the visitor acts as his own interpreter.

A similar experience will be possible in the new orientation gallery currently being discussed by the staff of the Discovery Hall Museum, a city museum of nineteenth-century midwest industrial history and working life, located in South Bend, Indiana (Huys and Mullin 1982). In order to assist visitors in their self-guided tours of the institution's permanent exhibits, the staff and I have entertained constructing a "Visitor's Workshop" at the entrance to the permanent galleries. The term workshop is meant not only to evoke the world of work depicted throughout the museum's exhibits but also to suggest the type of research work that must be done in order to understand the objects that survive from that bygone world (Curtis 1970).

In the Visitor's Workshop, therefore, people will have the chance to learn how to extract information and insight from data like company records, patent models, census tracts, and mail order catalogs. Reproductions of photography (especially commercial studio work, aerial photography, and family albums) and cartography (business atlases, fire insurance maps, city plans) will be stocked in the workshop, along with guides and primers explaining how to use such data as cultural evidence. Perhaps exercises will be devised especially to enable school children to work at learning the different skills of the interpreter's craft. They might be rewarded, as they master various levels of the material culture trade, with a certificate designating their advance in status from apprentice to journeyman, and on to "Master of Historical Interpretation."

Of course, there will be series of original artifacts in the shop. The series will probably change as new combinations of objects are thought appropriate to new interpretive questions. At present, the curators are thinking of including an early twentieth-century Studebaker farmwagon; three different kitchen ranges made during 1880-1920; a highly ornate plow hand-crafted for the 1876 Philadelphia Centennial, and two Singer sewing machines, one from the late nineteenth century, the other from the early twentieth. All visitors will have complete access to these objects. In their encounters with those examples of material culture, visitors will have the opportunity to learn something about research techniques like seriation, reasoning by analogy, and the concept of manifest and latent functions. Here again the objective is to introduce the visitor to a few of the actual concepts frequently used in thinking about things, in order not only to enrich their museum experiences in South Bend, but also to make their daily encounters with the objects of everyday life more intriguing.

In the past two decades museums have become increasingly interested in the objects of everyday life. For example, the Museum of Man in Ottawa, Canada, in its program for "Collecting the Future," has involved curators and visitors in an innovative fieldwork project requiring research into contemporary material culture (Riley 1978). This project enlisted volunteers to help work out an appropriate policy for deciding what objects of contemporary life—prepackaged foods, pocket calculators, disposable diapers, plastics and synthetics of all kinds—would be the most useful as cultural data for researchers of the future. Since to collect is to interpret, this project also gives museum visitors a perspective on interpretation as well as collection development. In having some sense of what collecting entails, visitors also acquire an idea of what re-collecting involves.

In these instances, museums are encouraging visitors to acquire object knowledge on their own. Other museums promote such learning by showing the visitor how their professional staff interprets objects.

From the visitor's perspective, the latter approach might be called learning by watching, as compared to the former which is learning by doing. Both have their uses in assisting every visitor to become his or her own interpreter. Some instances of the learning by watching approach will illustrate how this can work.

Craft demonstrations, living history re-enactments, and any activity involving the making, using, or re-using of objects are typical ways visitors learn about artifacts by seeing something done to or with them (Anderson 1982). When done well—and when visitors are permitted some significant role in the process—such demonstrations can prompt one to muse about one of the most exciting facets of all object study . . . Why do humans create? Where does the impulse originate? Are the creative ideas of the cobbler, the industrial designer, the architect, or the weaver the same? Different? The same *and* different? How are creative ideas, intuitions, and insights actually translated into leather or steel, stone or textile?

Several contemporary students of objects—Brooke Hindle in technology, James Deetz in archaeology, Henry Glassie in folklore, to mention but three who have worked in museums—have been fascinated with the complex processes of creativity and what a systematic study of it through objects might reveal. The Boston Museum of Fine Arts exhibit, *New England Begins: The Seventeenth Century*, particularly the section devoted to "Mentality and Environment," is one recent example of how research on the bases of creativity might be explored in a museum; another is Cyril Stanley Smith's *From Art to Science: Seventy Objects Illustrating the Nature of Discovery*, first displayed at M.I.T.'s Compton Gallery.

But many another museum exhibit has attempted to look at an object as it resided in the mind before the mind drove the muscles to create and to produce it in the tangible world. Such evidence of mind both in and over matter would include early sketches, prototypes, preliminary models, patent drawings, even doodles. More careful examination and more widespread exhibition of the "material culture of creativity" might help us better understand the processes of creativity, which many philosophers and psychologists hypothesize are often highly nonverbal, frequently visual, and even aesthetic, difficult to translate into conventional written or spoken prose. Exhibits attempting to explore this complex phenomenon should keep in mind Isadora Duncan's remark that: "If I could say it, I would not have to dance it."

In fostering museum literacy, however, we should not neglect speech. Indeed, there is at least one instance where speech patterns were crucial to leading the visitors to consider themselves as interpreters. When the staff at Plimoth Plantation in Massachusetts thought it worth learning to speak in seventeenth-century East Anglia dialect in order to do first-person interpretation on their site, they came, using good anthropological parlance, to call themselves "informants" and the museum's visitors "interpreters." It was as if the visitors to the outdoor living history museum were anthropologists doing field work, going into an exotic community and attempting to elicit whatever information they could from an alien culture. Unfortunately, these visitors to Plimoth did not always take away a sense of how carefully the museum staff had studied seventeenth-century speech patterns and vocabulary. Had they acquired this sense, linguistics, another tool in the contemporary material culturist's kit-bag, might have been added to the visitor-interpreter's as well.

Yet there are other examples of how museums let us in on how they exhibit or how they arrive at their interpretations. Curators at the National Museum of American History (NMAH) at the Smithsonian in Washington, for instance, have been willing to let visitors learn how object research fieldwork is done, demonstrated by the section of the *Buckaroos in Paradise* exhibit devoted to a display of researcher's field notebooks, photographs, sketches of artifacts, and oral history interviews. They have also disclosed how exhibit designers and curators exchange ideas, reach compromises, and decide on exhibit content and design, as evidenced by the display of the original storyboard that had been used in the fabrication of the Smithsonian's Electricity Gallery as a permanent component of the final exhibit. From that storyboard, the visitor can partially reconstruct how the curator of electricity and the exhibit designer traded marginalia, revised concepts, contested each other's ideas, and even indulged in a bit of graffiti as they created the exhibit. . . . A major exhibition planned for the (NMAH) Hall of Everyday Life in the American Past is scheduled to reopen in fall 1984.

But whether the NMAH will also retain a portion of its previous interpretation of early American life, assembled in the 1960s, by anthropologist C. Malcolm Watkins and the National Museum staff, remains to be seen. If they do, future Smithsonian visitors would gain an appreciation of how and why historians, in museums and academies alike, change their minds and their interpretations. The visitor has been able to acquire similar historiographical savvy at places like the Shelburne Museum in Vermont, the Hagley Museum in Delaware, and the Cameron-Stanford historic house museum in Oakland, California. In the Cameron-Stanford house, for example, the curators have deliberately retained earlier interpretations of their site and its objects so that the visitor recognizes that one generation's orthodoxy often gives rise to another generation's revisionism. Parenthetically, a greater awareness of the interpretive potential of previous exhibits might also stimulate more museums to recognize the importance of keeping more comprehensive documentary, photographic and, where possible, artifactual records of their own intellectual and institutional history (Schwartz 1982). Museums which labor diligently to collect and conserve the creativity of others, treat their own creations with callous indifference.

A FUTURE AGENDA OF QUIXOTIC IDEAS POSSIBLY WORTH ENTERTAINING

Thus far we have been looking at a small sample of data, suggesting the desirability of offering museum visitors some, not necessarily all, exhibits which contain healthy doses of participatory self-learning, awareness of historical relativism, and methodological pluralism. Unlike these instances, however, the next set of examples have not been tried in an American museum, so far as I know.

In my recent attempt to give some form to the diverse components of *Material Culture Studies in America*, I have tried to sort out the various conceptual models by which American researchers are currently gaining knowledge from objects. In that book, I proposed nine possible paradigms: art history, symbolist, cultural history, environmentalist, functionalist, structuralist, behavioralistic, national character and social history (Schlereth 1982). Each of these nine perspectives interprets objects in different ways, asking different questions and emphasizing different characteristics in order to learn from physical data.

Of late, I have been experimenting with applying these nine conceptual frameworks to a single object, a 1922 Dutch Colonial Revival tract-house that also happens to be my present home—and almost identical, even to the green and white exterior color scheme, to the one Sinclair Lewis, writing in the same year, fashioned for Babbitt. My objective has been to develop an interpretive scheme, applicable to many objects, that would show beginning students of material culture how enormously informative—and often equally enigmatic—a single object can be when studied from several angles of vision. As I have pursued this heuristic task, I have also pondered whether this sort of analysis could be done for a typical historical house museum. Would it not be useful to show visitors how to think about the concept of shelter, say, from a functionalist *and* an environmentalist perspective, a symbolist *and* a structuralist point of view, and so on? Might not a museum try this multiple-interpretive approach to a single artifact—like the St. Louis Arch, the Chicago Water Tower, or the Los Angeles Freeway? Indeed, the general concept could also be applied to a museum *site* as well. For example, an exhibit in a zoological or a botanical museum, a state park or an outdoor living history museum might be built around geographer D.W. Meinig's provocative model, "Ten Ways to Look at a Landscape" (Meinig 1979).

While much material culture research attempts to comprehend people through the objects that they make or use, there is another body of literature that suggests that we also consider what objects make of people. A future museum exhibit might explore what Eugene Rochberg-Halton and Mihaly Csikszentmihalyi have done in a new book titled *The Meaning of Things: Domestic Symbols and the Self*. The thrust of this research is how and why contemporary Americans relate to objects in their immediate home environments. Or, to put it another way, which things mean the most in people's definitions of who they are, have been and wish to become? (Rochberg-Halton and Csikszentmihalyi 1981). Object researchers might likewise inquire if there are certain things to which people are especially attached, say, in childhood or adolescence, middle or old age? Is there a category of things especially meaningful for each of Erik Erikson's eight stages of human development? (Erikson 1950). These are some of the intriguing questions worth pursuing in object research both in the museum and in the academy, among researchers and with museum visitors.

To date, however, despite all our collection and classification of objects, little is known about the reasons for human attachment to them or about the various personal ways by which they become incorporated into people's goals, experiences, and very identities. The Halton-Csikszentmihalyi study, especially the section on "The Most Cherished Objects in the Home," is one avenue of investigation; the insights found in novels like Marilyn Robertson's *Housekeeping* or W.D. Wetherell's *Souvenir* are another for helping us think through what the presence or the absence of furniture, visual art, photographs, books, stereos, musical instruments, televisions, sculpture and plants mean as part of what Halton and Csikszentmihalyi call the "possessions of selfhood." Data gathered empirically from contemporary Americans about their attachments to specific objects might also help museums explain more effectively the role of similar artifacts in earlier periods of American history.

In our quest for new object knowledge, we might also help visitors understand better contemporary environments and their objects. Could we not, for example, devise techniques for analyzing more thoroughly the material culture of twentieth-century institutions like the supermarket, the shopping center, and the automobile suburb? For instance, might it be possible to apply Levi-Strauss' concept of "the cooked and the raw" to the artifacts of the modern supermarket? Would it be appropriate to think of the shopping plaza as the "New American Main Street" in the new type of urban form geographer Peirce Lewis calls the "Galactic City" (Lewis 1977)? And is not the automobile suburb an excellent example of what archaeologist Michael Schiffer calls "the archaeology of us" (Gould and Schiffer 1981)? Museum exhibitions have been done on suburbanization and the strip, but I think the supermarket and the shopping center have been neglected. So have other emporiums of American consumerism: discount houses, sporting goods stores, electronics outlets, souvenir shops and, of course, museum stores. And to return to a point suggested earlier, that is, the sharing with visitors of some of the theory and practice of museum exhibitions: why not do a comparative exhibit where the art of museum exhibiting is contrasted with other genres of object displays like department store windows, trade shows, and world's fair pavilions?

If you grant the premise that museums should help us recognize and understand the inordinate abundance of material things that our contemporary culture produces, what Mary Douglas calls *The World of Goods*, then it follows that we might also look at the profusion of objects our society throws away (Douglas 1979). Prompting people to think how many twentieth-century objects have a planned—or unplanned—obsolescence might be the beginning of an exhibit design idea that explores the material culture domain of personal waste disposal (*e.g.*, waste baskets, trash compactors, compost heaps, garage sales) and of public waste removal (*e.g.*, county landfills, auto graveyards, metropolitan incinerators, toxic waste depositories). This proposal amounts, of course, to the very reverse of what was suggested above: that is, it may be as culturally significant to know what objects people decide to chuck as to cherish (Rathje 1977).

Jim Deetz once promised to do an exhibit at the Lowie Museum in Berkeley on the coal mining town of Somerville in northern California where he has been doing an archaeological dig for several years. Deetz's semi-whimsical plan was to shovel heaps of everything, including garbage, that the archaeologists had dug up into a rank or so of exhibit cases in the museum. In one alcove there were to be some 125,000 objects on display in whatever haphazard way they happened to fall from the fork lift. Photographs and extensive quotations from oral histories taken from former miners who worked the site were to be displayed as well. One entire wall was to be plastered with documents and ephemera (*e.g.*, mail order catalogs, advertisements, newspaper clippings) about nineteenth-century objects. Jim conceded that "in one little section off in a corner we will tell how we started thinking about these objects, to kind of give people a lead into the experience" but, he insisted, "we will not give a single interpretive statement" (Deetz 1981). Of course, the desire to do a strictly non-interpretive exhibit is itself a type of interpretation. Deetz's proposal does, however, speak directly to the issue of the visitor as his own interpreter—as well as to a playful bit of museum anarchy.

In this irreverent spirit, let me put a final item on the agenda for expanding museum literacy. Realizing that a number of museums have already begun to do so, I suggest that many more assume the responsibility for increasing the public's skill at interpreting public sites and structures (Duncan and Wallach 1980). At present, there are approximately 5,000 museums in America; they make up a significant part of the built environment of our public and communal life. These institutions have an opportunity to play a wider role in helping visitors interpret the meaning of a museum's spatial, historical and cultural context through walking tours of their locale; by publishing guidebooks to their neighborhood's public art, sculpture, and architecture; as well as by developing exhibits on the economic, real estate, geographic and political history of the area of which their physical plant is a part.

In short, museums might show their visitors how to do what some of us have called the "above-ground archaeology of the museum" (Schlereth 1980). The Delaware Art Museum, the Cincinnati Historical Society, and the Indianapolis Museum of Art have created just such programs and even extended their purview beyond the immediate neighborhood of their institutional setting to include the entire metropolitan areas. Since American architectural history has, to date, largely emphasized research into the single-family house and the commercial skyscraper, American museums might assume the initiative in promoting investigation of all types of *public structures*—their architectural style, their iconography, their relations to other public edifices, their place in city planning, their position in political, economic and cultural decision-making, and their meaning in our communal and personal lives.

Of course, this final type of inquiry—knowing the meaning in our communal and personal lives—is the primary reason for attempting to know an object, be that object a nineteenth-century Carlton Watkins photograph of the Yosemite Valley or the present twentieth-century physical site of Yosemite Valley National Park. In material culture studies, it is only the understanding of the culture that is behind, within, and around the material that makes the enterprise worthy of our time and our talent. Museum literacy, at its core, is but another form of human literacy, another mode of knowing, another grammar of understanding for reading others and ourselves.

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BIG ZOO BUG ZOO: EXHIBIT REVIEW

Barbara C. Fertig, *Editor,* Roundtable Reports

The National Zoo has been changing, and some of the changes have gotten very good press, as they deserve. Reconstructed areas are not only aesthetically pleasing, they seem to be humane and comfortable for the animals. But that's a very bland way to summarize what's happening at the Zoo. The big changes we've read about have been accompanied by little ones; some seem planned, some serendipitous.

I have to confess that I didn't even see the whole zoo. I started from the lower parking lot early in the morning, and hours later had progressed only through the lions, monkeys and reptiles, with a side trip to the cafeteria. Here's what I saw:

— Just across from the parking lot, where the zoo exhibits begin, are the waterfowl. I've never paid them much attention because they've usually either flown over to visit the deer or are skulking about under the bushes. But now there is a large sign (billboard-sized label) with good graphics that tells some interesting things about ducks and geese around the world and through history. Best of all it uses decoy-like wooden reliefs to explain the "social language" of the mallard. These are loosing their paint but are delightful, anyhow.

— As I moved on toward the lion hill I began to notice the use of bright banners, hanging in pairs—maybe ten feet long with symbols toward the bottom—to mark key exhibits and services. There are banners at the zoo entrance, too, but inside the impact is much greater. They are enormously festive and helpful as well.

— I imagine that most people have read about what good things have been accomplished for the lions and tigers in their reconstructed home, but there are bonuses for the visitor, too. There are some really good labels: the "object" label (Bengal tiger, for instance) is bi-lingual, includes a map of the animal's home territory and the answers to what I'd call "first" questions—those which come to mind first upon seeing the animal. One of these is "what does it eat," and the label gives two answers: the diet in the wild and the diet in the zoo. This acknowledgment of the special setting in which we see the animals interested me; I found that it was reinforced in other information. There is a label, for instance, that explains the new enclosures. There are others that tell why the animal is in the zoo, and still others that comment on the behavior that the visitor may see. This day was mild and sunny, and the Atlas lion was asleep on his back with his feet in the air. The label which caught my eye began, "Why do lions lie around a lot?" (The answer, roughly, is that they have a lot of digesting to do.)

The Zoo's special setting is again acknowledged by the photographic exhibits in the architectural niches between the enclosures. (A big gold star for the planners: built-in benches here which face the photo exhibit.) The continuous theme of these exhibits is the differing worlds of lions and tigers, but the photographs—large, colorful and gorgeous—remind us that the new enclosures are enclosures still. The photos also bring the animals closer to us, even closer than they were in the old cages. More than once I saw a child reach out to pat the picture.

— If the virtue of the lion exhibit is that it is totally changed, the virtue of the monkey house is that much of the old was saved. It is a wonderful building with a roof of glazed ceramic tiles, and the figures of lynxes and jackals perched on gables. The outdoor cages are gothic-looking ironwork, the walls solid WPA stonemasonry.

Inside and out, the cages have been refitted with log, pipe and rope constructions which might be called "jungle-gyms" except that they are much too elegant. The walls of the inside cages have been spray-painted a sort of green-becoming-ochre which suggests the wild habitat without pretending that it is. The monkeys no longer sit around on the floor or hunker down in the back corners of wall shelves; they're everywhere now, they fill the cage, swapping perches and curling up in log "elbows" for a nap. The effect is like monkey "sculpture," and the animals seem cleaner and livelier.

The labels in the monkey house are tri-lingual: English and Spanish, as in the lion exhibit, and here in French also. They are screened onto the glass that separates the cage from the visitor. This is a kind of trade-off; the letters are big enough to be quite legible, and I like having them so accessible, but the background doesn't show up the words evenly, so that visitors are forever bobbing up and down in order to finish a sentence.

Here in the monkey house I missed the presence of labels giving any secondary sorts of information; the more, since what I was seeing was so exciting and I therefore spent more time, saw more, and had more questions.

I would have welcomed a person to answer my questions, or the kind of sensitive labelling I had found at the lion exhibit. I wish I knew why the red uakari stood at the glass, chattering and screaming at visitors, bringing down his fist on the sill like a miniature orator pounding his lectern. I wish I knew the dates when the baby monkeys were born.

— In the reptile house the labels extend horizontally from the bottom of the cases to the handrail; you have a place to lean while you read. There is adequate room for a satisfying amount of information, and this is categorized, so that comparisons between the animals becomes part of the experience. On each label there is also room for a photograph of some distinguishing characteristic, like the rattlesnake's rattles. One of the snakes I saw was the rufous beaked snake. He was a dark coral color (rufous) and had a snouty sort of face (beaked). I got that from the label. A woman came along with a child. "What's that?" said the child. "That's a rufous beaded snake," said the woman. "They call it that because it looks like a string of pearls." There is a limit to what good labelling can accomplish.

— The cafeteria's new look includes some attractive symbols telling what's on the menu (except that you have to step way out of line to read them) and the *most* wonderful wallpaper. The place was very clean on a Saturday at lunchtime. My hotdog with sauerkraut was three smiles and three whisks.

To mark the transition between assignments, I got myself stung by a yellowjacket on my way out of the National Zoo. That's not a complaint, really; it's much better than being eaten by a lion while entering the Insect Zoo.

The Insect Zoo is located in a far corner of the National Museum of Natural History, but people seem to have no trouble finding it. A great many visitors are young boys who come to see the scorpions and tarantulas fed. (Feeding times of the more interesting creatures are posted at the entrance.)

All insects are arthropods, but there are a lot of different kinds; therefore, the Insect Zoo has worked out a didactic presentation that groups insects by various functions: how arthropods eat, how some live communally, how others protect themselves. This is nice for people who want to carry away the feeling that they have learned something specific, and it works as well for folks who just sit and watch the insects and ignore the labels.

There are young people in laboratory coats bearing the Insect Zoo's logo who take visitors on "tours" and are available to answer questions, and there is an excellent system of labelling and of ancillary exhibit materials which progress from the general to the specific in easy steps. For example, the exhibit on "How Arthropods Eat" has, like the other sections of the Zoo, a title which hangs from the ceiling. The next step down—smaller letters, more words—introduces the categories of eating into which the exhibit will be divided. Then, smaller and longer, information on each of these categories, and finally, some details about the insects busy at their meals. (If I have a complaint about this excellent exhibition, it is that the information ends here: all we are going to learn about aphids is how they eat. Do they live communally, like the ants in the next exhibit? Aren't they used by some ants as "cows"?) There is a nicely done film presentation, in color and greatly magnified, showing many kinds of insects each taking one bite. I found it fascinating for a while, then horrifying.

If you're there to watch the live bugs, and don't know what to look for, mounted specimens adjacent to the featured attractions help you, and if the critter is very small, a magnified photograph is provided. (Here, as at the National Zoo, the photography is lush.) There are canvas folding stools provided throughout the Zoo; on a weekend it's like a game of musical chairs.

Maybe the best part of the Zoo is a simulated strip of outdoors that runs the length of one wall. In it are weeds, trees and a marshy pool peopled with spiders, butterflies, millipedes and such, all growing, going about their business, winning and losing battles, inside a big glass case. The wonder of it is that the insects have no sense of our presence. One would have to sit still for hours to see a meadow come to life in this way. Once again, the live creatures are identified by labelled, mounted specimens just outside the large case.

There is a small carpeted corner fitted out with a bookshelf in case you want to find some answers on your own. I am impressed by the many ways to learn and to enjoy that are provided by the planners of the Insect Zoo, and more so since few of these approaches compete with or exclude the others. The Bug Zoo, of course, has all the advantages of being a new idea, and builds on some good experience with the new learning spaces at MNH. The Big Zoo progresses more slowly, but as it moves toward better conditions for its animals, so it has moved toward better experiences for its audiences. The existence of its education department is palpable in these experiences.

This exhibit review appeared in Roundtable Reports, *(Fall) 1976. Barbara Fertig is now at work on a doctorate in American folklife studies.*

TO SPEAK THE NAME OF THE DEAD: EXHIBIT REVIEW

Ken Yellis, *Associate Curator of Education, National Portrait Gallery, Washington, D.C.*

"Why," asked Mrs. Yellis, "is everybody so interested in Egypt these days?" Perspicacious as ever, I replied, "Beats me." But widespread interest among Americans in things Egyptian is undeniable. Next time insomnia strikes you, instead of counting sheep you can while away the idle hours deciphering the hieroglyphs on your sheets.

The occasion for my wife's question came when we spent ten minutes on a Saturday afternoon waiting in line to see the Metropolitan Museum of Art's reinstallation of its Egyptian galleries. But ten minutes is no time at all when the hardy Washingtonian wants to see Egyptian stuff. Thanks to the National Gallery of Art's "Treasures of Tutankhamun," we have the opportunity to wait for hours. The experience is well worth the wait.

There are difficulties involved in comparing a permanent installation to a temporary exhibition. Each is a response to different problems. The National Gallery's show has the initial advantage of dealing with only—"only" seems an odd word for these objects—55 objects, carefully chosen for their appeal to the modern eye as well as their intrinsic interest. Furthermore, these "wonderful things," in the words of discoverer, Howard Carter, all date from the same period of Egyptian history and were part of the incredible same find. Indeed, another advantage of the National Gallery exhibit is the thrilling story of the discovery itself which serves as the show's narrative spine.

The Met, on the other hand, has somehow to present an enormous permanent collection of artifacts that document the variety and expanse of millenia of Egyptian civilization. One can imagine the struggles waged as curators and exhibit designers tried to decide which among the tens of thousands of pieces to display—and how. Even the Met's generous Egyptian wing is hardly enough to exhibit all the objects arguably worth showing.

The general texts and object labels that try to hold all of this together constitute an exhaustive and dry exegesis on Egyptian history and culture over thousands of years.

I don't want to overstate the problems with the Met installation. It will edify and even entertain anyone with interest and stamina for hours on end. But it is the objects in their profusion and wonder which triumph, more often than not having to overcome their arid labels.

I recorded what struck me as a fairly typical label for a wall painting called "Fishermen Hauling in the Catch," dating from the Fifth Dynasty, Old Kingdom: "Several different species of fish have been trapped in the seine, which is prevented from sinking too deeply by the triangular floats. A lively appearance is given to the scene by the vigorous figures of the fishermen." Not terrible, but not terribly illuminating either. (Overheard in one gallery: "If I came back every day till I memorized every word, they still wouldn't mean a thing in my life." In another gallery: "This is an example of a *what*.")

To an extent, the object labels create bottlenecks, especially at the beginning of the installation, primarily because of the density of objects in the exhibit space. Problematic, too, are the general texts designed to orient the viewer. The background information on Egyptian history, religion, geography, agriculture, and so on, is available only in a series of lengthy labels displayed on a running, waist-high railing. Only one or two people can read them at a time, though one can skip some or all of them and go directly to the things. That would be all right if this data were reiterated as needed in object labels, but it is not.

In the National Gallery exhibit, the problem of crowd control has been acknowledged. The long lines that form in the rotunda are informed by orientation panels. These are repeated at the entrance to the exhibit itself, where large numbers of people can read them without obstructing those who want to go into the exhibit. These initial panels contain about half the total text of the show, enlarged for easy reading, illustrated by photo murals. The panels are about an hour's worth of reading and answer "first questions" about "Egypt," "Art," "Tutankhamun," "Afterlife," and "Search for the Tomb." These lay the foundation for appreciating the objects and introduce the narrative theme of the exhibition, the discovery, in 1922 after six years of searching, of the tomb of King Tutankhamun by Howard Carter. Subsequent panels throughout the exhibit continue the story of the search and the painstaking removal and restoration, over the next ten years, of the objects found in the tomb.

The theme of the search for the tomb and its excavation is reflected in the design of the exhibit itself. The nine galleries correspond to the four rooms of the tomb—Antechamber, Treasury, Burial Chamber, and Annex—with the objects displayed according to where they were found. A perhaps unfortunate side effect of this is that the most dazzling objects are in the first third of the show. The transition from room to room is punctuated by huge photo murals documenting the expedition from photographs taken by Harry Burton at the site. These are annotated by appropriate quotations from Carter's three-volume history of his discovery. . . .

But it is in the panel texts that this process is underscored; they repeat over and over that Carter's quest took six years and that the removal of the objects took another ten. It seemed important to Bill Williams, who wrote them, to stress that Carter was a scientist, not a treasure hunter, and that the location of the tomb ended only the search, not the work.

The themes of the process of discovery and the centrality of the objects are heightened in other ways by the installation. The lighting throughout is dramatically dim with spotlights on the objects. Each room contains but a handful of these breathtaking pieces and almost every one is displayed singly. The free standing floor cases in which most of the objects are shown are painted the color of the walls in that room. The plexiglas vitrines protecting the objects are so tall that their top edges are above eye height for everyone this side of Wilt Chamberlain.

These vitrines, by the way, create one of the great serendipitous delights of the show. Because of the lighting, it is possible to see the reflection in plexiglas of the other side of the object in the case. Often, one can see other objects in the room reflected as well, evoking some of the splendor that Carter, and his sponsor Lord Carnavon, saw as they breached the Treasury. Similarly splendid is the display of the goddess Selket against the background of the photo mural showing her as she was discovered in the Treasury, guarding the canopic shrine.

The labels for these objects are repeated on almost every side of the case, so one can both see most of the features of the item and read about it without having to circumnavigate the case. This is important, because the exhibit is always crowded. . . .

People are drawn to and spend more time with the more detailed objects and, as a result, the first Treasury room is a real bottleneck. The exhibit can be oppressively close: museums could do their clientele a real favor by stressing that they are not department stores and that they do have coat rooms. In the second of the Burial Chamber rooms a large fan has been put in a doorway because, aptly enough, a guard told me, four people fainted there one day. I couldn't help feeling, especially the second time I saw the show, that the space would have seemed less crowded were it not for all the people taking the acoustiguide tour. I have not taken the acoustiguide myself; those who have seem evenly divided pro and con. It seems clear, however, that although the emphasis of the acoustiguide is more aesthetic than that of the labels, they are alternatives, not complements to each other, for most people.

It seems a pity that anyone omits the labels in this show. Although the wall panels use short words and have only five or six short sentences per paragraph, they were deliberately left long to discourage non-readers and prevent their getting bogged down. Despite their length, these are excellent, repeating key points—Carter waited 3½ years before dealing with the Treasury, we are told five times—and introducing information—such as the Egyptian view of the afterlife—gradually as needed.

The object labels are short and wonderfully helpful: I kept saying, "I see!" Unusual features, such as the feathered garment on the god Ptah, are noted, but not speculated on if the explanation is not known. In some cases, this may go too far, as when the curatorial reticence prevented alluding to the jewelry in Tut's tomb as including the earliest known example of clear glass in Bronze Age technology. But they do tell you things the Met must think the layman already knows: the model ships for journeys in the afterlife were used for voyages upstream (on the Nile, that's south) with the prevailing winds, without sails they would float downstream on the current.

I could go on, but see the show yourself. This is a show which makes its subject, a playful boy-king with a young wife of whom he was apparently quite fond, come alive for its modern adult audience. There are no objects in this show any more spectacular than the best things owned by the Met. But the Met permanent Egyptian Wing somehow fails to make us think, as this temporary exhibit always does, of the human beings who made and used and preserved these objects.

Tutankhamun's game board, his ibex unguent vase made with real ibex horns and showing the animal's bright red tongue, the incredible detail of the golden shrine showing the daily lives of the monarch and his queen, the lion unguent jar which still contained its liquid when found in this century, "Tutankhamun the Harpooner" slaying the devil symbolically on his mythical hippopotamus hunt, all are brought into sharp focus and made part of the web of time. The Egyptians believed that "To speak the name of the dead is to make them live again." Thanks to the National Gallery, Tutankhamun lives again, and we have known him.

This exhibit review appeared in Roundtable Reports *(Winter) 1977. Today Ken Yellis is Curator of Education at the National Portrait Gallery.*

NOURISHING THE LUNCH-HOUR CONNOISSEUR

David L. Butler, *Education Coordinator, Museum of Art and Archaeology, University of Missouri, Columbia, Missouri*

The Museum of Art and Archaeology at the University of Missouri, Columbia, is the third largest art museum in the state and the only such facility in central Missouri. Its collection of approximately 8,000 objects covers almost the entire range of the history of art, with holdings in ancient Mediterranean art and archaeology, paintings, prints and drawings from the early Renaissance to the present, and collections of African, Pre-Columbian, Oceanic, Far Eastern and South Asian art. The museum is located on the second floor of Pickard Hall, a newly renovated Victorian classroom building, which also houses the UMC Department of Art History and Archaeology. The educational staff consists of a half-time education coordinator and his assistant, and there is a modest budget to fund education programs.

Begun in October 1980, the weekly "Lunchtime Tours" were designed to take advantage of the museum's proximity to 8,000 university faculty and staff and 25,000 students. In seeking to serve this new audience, the program increased awareness of the museum, its collections and its programs within the university community.

Lunchtime Tours were held every Wednesday from 12:25 to 12:55, allowing participants time to eat lunch before the tour. Each program focused on a particular aspect of the collection. Topics ranged from Chinese silks to Egyptian religion to Dutch painting.

The tours were initiated and planned by the education coordinator. Docents, museum staff, graduate students and faculty were contacted; topics were solicited and the availability of each speaker was determined. The schedule was made to accommodate the interests and expertise of various speakers, the availability of specific objects, changing exhibitions and the necessity to provide a varied "menu" of subjects.

When the Lunchtime Tours first began, attendance was poor. The schedule was carried in the campus employee newspaper and the two local daily newspapers, but this publicity attracted only three to twelve people for the first sessions in the fall semester 1980. For the 1981 winter semester, the scheduled talks were printed in a brochure with a short paragraph outlining the content of each presentation. Since the target audience for the talks was the university community, these brochures were distributed to approximately 500 campus offices. After this mailing, attendance jumped to as high as forty people for some sessions, with attendance averaging from twenty to thirty people. In the 1980-81 academic year, approximately 515 people attended Lunchtime Tours.

Lunchtime Tours have provided some memorable experiences for gallery visitors. One of the most popular tours, "Art Isn't All It's Cracked Up To Be," featured the museum conservator demonstrating the effects of age and climate on Old Master paintings. An ultraviolet lamp in the darkened gallery revealed hidden damage and restoration, soliciting spontaneous "oohs" and "ahs" from the audience.

Another presentation, by a docent with a special interest in cooking, focused on objects in the gallery used in the preparation and serving of food in ancient and medieval times. The tour concluded with samples of a medieval custard prepared by the speaker and distribution of copies of the recipe. In a discussion on fashion in antiquity by the curator of ancient art, mirrors, cosmetic containers and the like were pointed out, and the session was highlighted by another museum staff member who modeled a classical Greek chiton and peplos. While all tours were not so imaginative, always an effort was made to allow the visitor intimate contact with art objects. Often pieces were removed from cases, and sometimes passed around, under proper supervision. Materials were also brought from storage to enhance specific topics.

The weekly capacity crowds, the positive comments received from those who attended and the numerous repeat visitors indicated that the project was a success. Unlike the standard museum tour which touches lightly on many areas—testing the endurance of both the speaker and the audience—the format of the Lunchtime Tours permitted visitors to acquire a substantial amount of knowledge about a limited area in a relaxed, informal setting. Because the talks were limited to thirty minutes or less, visitors did not seem to feel overwhelmed by a mass of material; in fact, they always seemed to be ready for more.

The program had some unexpected benefits as well. Museum docents who presented talks gained self-confidence and a better ability to work independently. The special format of the Lunchtime Tours made it possible to draw on the talents of graduate students in the Department of Art History and Archaeology, a group often reluctant to give general tours of the museum, but eager to present talks in their areas of expertise. In addition, because a published schedule of talks was available, several requests were received from campus and community groups for "re-runs," indicating an increased awareness of the museum as an educational resource.

The overall costs of the program were very low. The only cash expenditure was for the printed schedule; each semester 1,000 copies were printed for less than $150. Mailings on campus were free. Total expenses for the year were under $300.

Since expenditures of time and money are minimal, the Lunchtime Tour format could be easily adopted by a small museum with limited resources. For such a program to succeed, there must be a group of people qualified and willing to present the talks, and the museum must be located in an area where many people are within easy walking distance. At the Museum of Art and Archaeology, a modest investment of time, money and energy has resulted in a program which has convinced many people that a museum can be a vital, interesting and sometimes downright fun place.

This article appeared in Roundtable Reports, *V. 7, No. 3, 1982. David L. Butler continues at the University's museum.*

INTERPRETATION IN THE BUILT ENVIRONMENT: NEW OPPORTUNITIES FOR MUSEUM EDUCATION

Nancy Brennan, *Education Consultant, Boston, Massachusetts*

Ready for a short game of imagination? First, choose a familiar urban neighborhood. Reduce it to one-quarter real scale. Next, through the wizardry of twenty-first century exhibit technology, install it, perfect in every detail, into your spacious, sensitively lit, well-appointed museum. Include every dimension: the high-rise condominium, the Victorian townhouses, the Burger Chef and the Mobil station, Forgione's butcher shop and Brown's Wine and Cheese Shoppe, parking meters and wire trash receptacles, flatbed trucks and motorcycles, exhaust fumes and the sweet smell from the doughnut shop, harsh horns and floating giggles from a group of school children.

Impressive exhibit, isn't it? What is more, it is replete with interpretive potential! It is perfect for teaching the evolution of urban architectural styles, showing not only the "pure" styles, but the marvelously eclectic combinations America favored. At the same time, it can demonstrate the impact of advancing technology on building arts, *e.g.*, how steel-frame construction loosened gravity's grip on the architect. Say, how about using the manhole covers, fire plaques, fences and visible architectural detail in a scavenger hunt for visiting school groups to stimulate their visual awareness within a city environment? If natural science is their interest, you could use the open spaces, trees, shrubs, and flower boxes to fashion a discovery exercise investigating how many wild and domesticated species of plant life are found in an urban neighborhood.

Remarkable exhibit all agree; it almost feels real. Almost. Where are the elderly women leaning on their forearms out the window watching the public works department digging up the street? Where's the aproned man selling soft pretzels and the woman selling red and white carnations wrapped in green tissue? Missing, also, are the graffiti, the election posters, the construction sites' "murals." Your exhibit may now seem lifeless, but there's one consolation: at least you don't have to clean up after the dogs.

The obvious moral of our mental exercise is that living cities are wonderfully rich and complex exhibits. Whether taken as a whole or segmented, an urban neighborhood can be an ideal learning laboratory for local history, American history, architecture, geography, botany, biology, physics, civics, and more. As urban planner John Dyckman wrote:

> Learning has always been the most powerful lure of the city. The city as a work place was expected to inculcate skills, and the city as a play place was expected to provide vices which were at least slightly instructive. The city as a show place was a place to wander around and gape at. . . . The educative uses of the city have always been too numerous to be included in the curricula of the schools *[or in the walls of a museum]*.

Built environment education is a young, eclectic and growing discipline. If New England offers a typical sampling, its practitioners include classroom teachers, historians, architects, planners, community residents, natural science educators, artists and an increasing number of museum educators. Built (or man-made) environment education focuses on what man has made; urban environmental education concentrates more specifically on the components of the city environment. Generally, there are three principal goals present, with varying emphases, in built environment education programs, whether these are presented by a school, community organization or professional group: 1) to stimulate the participant's awareness of the built environment and its components; 2) to use the built environment as a classroom to study a given subject area; and 3) to encourage the participant's active evaluation of his environment through greater understanding of its origins and his options as a resident.

Built environment education is a logical outgrowth of our concern for the vitality and quality of life in our towns and cities. Increasingly, public officials who have most frequently dealt in isolation with problems like housing, services, planning are confronted with the focused activism of community groups and individuals who are insisting on a stronger determining role. Effective public participation requires broader public understanding of the environment, of its beneficial and negative components and of the processes involved in community change. And many historical societies, preservation organizations and other community groups have undertaken built environment programs aimed at adults. In Annapolis, Maryland, for example, Historic Annapolis, Inc. has had since 1952 a prolific education program including walking tours, special exhibits, celebrations, lectures and storefront museums to further its preservation objectives.

Similarly, many children's programs have appeared across the country, encouraging a pride and possessiveness about the community based on a grasp of its history and feeling of "sense of place." The Birmingham Historical Society, Birmingham, Alabama, for instance, has developed a full-scale urban discovery curriculum, *Downtown—An Outdoor Classroom*, for the area school system.

It is not surprising that many museum educators are considering where their functions and objectives may dovetail with those in built environment education. Certainly, the principal aspects of both are strikingly similar. Built environment educators use many of the same tools as museum educators, *e.g.*, the inquiry method, hands-on participation, the analysis of the object in light of prevalent technology, popular style, craftsmanship, etc. Also, historically speaking, "outdoor museums" like Colonial Williamsburg and Old Sturbridge Village have been concerned with the interpretation of an historic town and its society for decades. Indeed, the key differences which distinguish built environment education from museum education are only that *today's* town or city is the "artifact" under study and the frequent changes it has undergone are a significant aspect of its interpretation.

While it is enticing to urge museum educators to grab their bag of skills and rush out into the exciting interpretive world beyond the walls of their museum, there yet remains the practical question: Can the museum afford it? The demands of time, staff and money are obvious in this kind of programming and most museums are hard-pressed already to answer the requirements of their internal functions. The museums which have made a substantial commitment to interpretation in the urban environment have done so because of the impelling belief in this type of interpretation.

The following profiles of three New England museums illustrate three very different types of programs; yet the core of each is active interpretation/education in the built environment. Individually each demonstrates the innovative skill of the institution. Together they show the exciting potential of museum education in the built environment.

The Teenagers' City Travel Center is the Boston Children's Museum's latest program designed to aid its audience in gaining a greater understanding and more efficient mastery of the Boston city environment. Funded by the Youth Projects Division of the National Endowment for the Humanities, the program will produce a wide variety of travel formats with companion educational materials aiding young people to explore independently humanities-related themes by visiting constellations of cultural institutions, ethnic neighborhoods, historic sites and work places around the city. For example, a teenage girl could request help from the Travel Center in planning a day or weekend agenda of city activities related to her interest in historic fashions. The activities might include visits to Grandmother's Attic at the Children's Museum, the portrait hall of the Boston Museum of Fine Arts, an exhibit of nineteenth-century photography at a local gallery and the microfilm section of the Boston Public Library to view illustrated clothes ads in back issues of newspapers. As a member of the Center (which will cost her a nominal yearly fee) she is entitled to unlimited trip-planning services, reduced admissions and discounted subway and bus fares.

Boston's public transportation system is the key to the program's rationale. In 1972, the museum studied 50 teenagers' experiences with public transportation, their understanding of Boston's geography, and their awareness of cultural programs open to them around the city. The results indicated that many young people, lacking confidence or familiarity with available transportation facilities seldom ventured beyond the borders of their own urban or suburban neighborhood; in contrast, as members of the Center they are guided by a reliable system keyed to their own interests and abilities.

Teenagers will be the front line staff of the City Travel Center. Recruited by local youth organizations, "Teenagents" will promote the Center in their own neighborhood and work on a revolving basis at the Center headquarters at the Children's Museum in Boston's wharf area. Jim Zien, Director of the Children's Museum Resource Center, will direct the project.

The Teenagers' City Travel Center is the museum's response to the needs of a significant portion of its audience. As a young participant in a 1970 study of children's conception of their city said, "[You should explore the city] so when you grow up and want to go places you know where to go and how to get there, instead of just searchin' and searchin'."

In the neighboring state of New Hampshire, Strawbery Banke, Inc., Portsmouth, is devoted to the interpretation of an urban neighborhood's growth and transition from its beginnings in 1695. On a ten-acre site

Strawbery Banke is comprised of approximately thirty buildings which together represent the life of early Portsmouth in its pursuit of maritime trades.

Strawbery Banke is the origin of today's Portsmouth and a significant part of the museum's philosophy is to reduce the physical and psychological barriers between Strawbery Banke and the rest of the city. Indeed, future plans include leaving open all the gates in the security fencing around the museum during public hours to encourage residents and visitors to wander at will.

The museum's blend of preservation and education relies on the novel and flexible use of its buildings. While some buildings have been designated for exhibits, others are used for income-producing residences and shops. Similarly, some buildings have been restored to a specific period, but others are largely untouched to show the sequence of occupants' tastes.

Three buildings now house educational exhibits zeroing in on significant aspects of the area's social and architectural history. For example, the Sherbourne House (1695) shows how the settlement developed, who the Sherbourne family was and how this house grew and changed as the family flourished. A fourth exhibit, planned for 1980 or 1981 will be "How to Build a Building," which will look into a house's internal organization and how this affects its external style.

Beyond the exhibits, the museum's interpretive methods include an outdoor marker system, guide books and walking tours led by paid guides. Of particular interest is a tour which integrates the individual buildings and their occupants to portray the social structure, concerns and activities of the Strawbery Banke neighborhood in 1850.

The museum's interpretive program is a conscious link with the City of Portsmouth. In Strawbery Banke a resident learns about the origins and determining influences which have shaped the city's present character. He also leaves better equipped, as John Durel says, "to walk a downtown street and make sense of what is around him."

In this final example, "downtown" is the focus of a pioneering effort to revitalize a wasted urban core, through historic preservation, interpretation and reuse of historic resources. Lowell, Massachusetts, is located on the Merrimack River about 30 miles north of Boston. It was founded in 1822 when daring investment in new technology and new production methods of the day allowed the creation of finished products from raw materials at one location. The Lowell experiment transformed the textile industry, and became America's first great industrial city.

The heart of the nineteenth-century system was the power canals providing a dependable source of power to the many mill corporations which lined their banks. Lowell developed rapidly, and by 1850 it was the largest cotton textile center in the world, with a consciously conceived and planned community, mills, housing, social institutions and amenities.

However, after the First World War many of Lowell's mill corporations left the city, moving closer to the source of raw materials and cheap labor in the South. An inexorable downward cycle of unemployment, economic stagnation and physical decay began which continued into the 1960s when, for many residents, abandoned mill buildings came to symbolize all that was wrong with Lowell.

The scale of what needed to be done was enormous. In 1976, for example, over 1.5 million square feet remained vacant within historic structures, in spite of active efforts by local and state agencies to find the formula which would turn Lowell around.

Finally, years of adroit political activisim brought the financial clout and coordinating powers of the federal government into the Lowell effort. Under a 1975 law a planning commission was formed which decided that the formula for the city's revitalization was education and history. Restoring and interpreting Lowell's past would be a magnet to attract visitors, new businesses, new jobs and fresh money into the city's economy. . . . (Lowell became the first major urban park in the U.S.) Lowell is the first instance where the administration of a national park will be shared with the community.

The full plan may take a decade to complete, but its concepts and design illustrate an innovative application of museum education technique within the urban environment. Broadly speaking, the interpretive program is based on a cohesive matrix of (1) general restoration or preservation of historic structures within the park area; (2) restoration (and interpretation) of selected buildings to their original function; (3) exhibits in abandoned industrial buildings; (4) extensive outdoor signage; and (5) a barge system which will move people through the park via the existing canal system. Through this integrated program, the visitor will perceive a remarkably complete picture of what it was like to live and work in Lowell during the height of the social and industrial revolution of the nineteenth century.

The State of Massachusetts is reviewing proposals from other cities to replicate in their area Lowell's successful formula of economic revitalization through reuse of historic resources. Similarly, New York State is conducting a survey of its industrial cities to determine whether the Lowell phenomena can be replayed there.

Our cities are central to the lives of a majority of Americans. This fact alone should persuade museums to develop some manner of built environmental education program within their education departments.

A city may well be the most complex, interactive and concentrated "artifact" which museum educators have faced; yet as the three New England profiles testify, active interpretive programming in the built environment can yield rich rewards.

This report appeared in Roundtable Reports, *V. 4, No. 1, 1979. Nancy Brennan is now Director of the Municipal (Peale) Museum of Baltimore in Maryland.*

CONSTRUCTING A CULTURAL CONTEXT THROUGH MUSEUM STORYTELLING

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Museum education strategies and materials should be tailored to the nature of the exhibition to be viewed and appreciated. The exhibitions mounted by art museums differ considerably in character. A basic difference to be considered for our purposes concerns the contrast between inviting perception of the works either as fine art exemplars or as cultural artifacts. Often an art museum exhibition presents items as fine art exemplars; museum educators acknowledge that in these instances the preparation of instructional materials should be informed primarily by the methods of art criticism and art history. At other times, however, an exhibition presents its objects in the formality of cultural artifacts, in which case art history and cultural anthropology methods should dominate in the preparation of the educational materials. . . . Through our recent efforts in art museum education we have developed a special interest in the educational venture of supplying a cultural context to focus young viewers' perceptions of the artifacts and to enhance their appreciation of the same. . . . An emphasis on cultural context characterized our development of educational materials for the Minneapolis Institute of Art's Viking exhibition of 1981.

The exhibition was extensive, comprised of over 500 artifacts. The objects were drawn from several centuries of Viking trade and expansion, scattered beyond Scandinavia to a number of countries. Often the first viewer reaction was that the artifacts were disappointingly small. Moreover, the elaborate animal motifs ornamenting almost all of the objects were stylized beyond recognition by untrained eyes. Notwithstanding these limitations, public enthusiasm for the exhibition was remarkable, especially among those of Scandinavian descent who were eager to give their children the rare chance to see samples of their ancient heritage. The opportunity was not ignored; almost twenty-six thousand school children visited the Viking exhibition during its two-month run in Minneapolis. The educational materials sampled here were made available to all of their teachers.

In devising a means for leading youngsters toward an appreciation of the Vikings through material culture, storytelling seemed an ideal vehicle for recreating the intellectual and emotional framework of this ancient people. Storytelling already serves children well in buffering their gradual introduction to the harsher realities of adult life; it can also escort them into the strangeness of other cultures. Well-told children's stories are simultaneously old and new; it is as if there were only one story in the world to be told, with endless minor variations. The conventions of storytelling do not have to be relearned, no matter how specialized the narrative. To invoke these conventions is to unleash a generic sense of wonder, a state of readiness for delightful discovery. . . .

Seven Principles of Museum Storytelling

1. An effective museum story balances entertainment and factual soundness.
2. An effective museum story is compact.
3. An effective museum story is concrete, employing highly visual language.
4. An effective museum story is personally appealing.
5. An effective museum story not only describes artifacts but tells how some of them are made.
6. An effective museum story dislodges mistaken stereotypes.
7. An effective museum story invites cross-cultural comparisons.

Seven principles of museum storytelling emerge from our experience. First, the story must be both entertaining and factually sound. Lackluster descriptions simply are not listened to; on the other hand, nothing is accomplished by spellbinding distortions and fabrications that misrepresent the cultural milieu. To achieve dramatic impact reasonable room must be left for literary license, but the storyteller must prudently judge whether the adjusted facts, singly or cumulatively, are not substantively misleading. In our Viking story we portrayed almost a dozen of the exhibition artifacts as the personal possessions of a single family, judging that the literary conceit did no essential violence to the cultural context or character of the individual artifacts.

A second requirement is that a museum story be compact. The time, place and characterization embodied in the tale should be on a scale manageable for a child. The common response of children to wandering epics is probably wandering attention. Genealogical romps through the centuries test children's patience, and elaborate casts of characters too easily confuse them. In short, a museum story designed for youngsters is considerably less ambitious in its culture reconstruction than *War and Peace*.

With this in mind, we found it helpful in our Viking tale to do quite a bit of dramatic telescoping. The far-ranging map of Viking conquest, commerce, and colonization was compressed into a single Norwegian fjord. Almost three centuries of Viking endeavor were epitomized within a single day in the life of a rather small extended family.

The third principle is that the story should employ highly visual language, the better to engage the visual imagination of children. It should be remembered that a major objective of the museum story is to channel visual perception of artifacts; ideally the storytelling will precede the museum visit, so that the story's visual suggestions, reinforced on site by docents and accompanying teachers, will guide and deepen the children's perceptions. The story should include some colorfully detailed observation of the form and function of selected artifacts. Our Viking story directed, for example, children to notice the detailing of some artifacts that might not otherwise command attention. It also implanted the notion that the Vikings were not inclined to distinguish, as we do, between the decorative and the utilitarian and that not only their jewelry but also their common household implements were richly ornamented.

According to the fourth rule of thumb, an effective museum story is personally appealing, with a strong affective component. The most obvious route to personal appeal is to be sure that the story's protagonists are children with whom listeners or readers can readily identify. Although it is good for the scenes of the story to be viewed through children's eyes, we prefer third-person to first-person narration for our stories. We agree with children's author Mollie Hunter's judgment that we would pay too high a price for the immediacy of first-person narration. In the interest of credibility, museum story writers using the first person would have to confine themselves to the limited vocabulary and limited grasp of a young narrator, and that would not encourage an adventure in language. For in the museum story, personal engagement is not an end in itself; rather it is a means for leading children beyond the familiarities of childhood toward appreciation of adult culture.

Not only are museum stories enhanced as narratives by an appreciable emotional content, but their educational power probably is augmented as well. Most learning, certainly learning in the arts and humanities, is facilitated by appropriately directed affective engagement. Since many historical artifacts once held emotional significance in their proper cultures, it is important that culture-reconstructing stories evoke the emotional as well as the intellectual framework of their meaning.

The fifth principle directs the story to observe how some of the artifacts were made. Among other things, the story would do well to note how craftsmanship was pursued to high refinement in circumstances that would often be judged unfavorable or intolerable by modern standards. In the continuing tension between handcrafting and mass manufacturing it is good for children to be reminded that not every intersection of good materials and good working conditions produces noteworthy artifacts and that the reverse is not always the case either.

An important function of the museum story, according to the sixth directive, is to dislodge troublesome stereotypes. We must not imagine that our stories are filling vacuums in children's minds. So, the tale should anticipate and counter some of the pop-cultural clutter which might pass for substantiated fact in the area of concern. One way for story writers to identify the prevalent stereotypes is to immerse themselves in the popular levels of the mass media, monitoring comic strips and popular television shows, for example, for errors and distortions in the portrayal of the culture in question. A much better way is to engage a few children in association games. Before attempting our story, we asked youngsters: "Close your eyes and think of Vikings; what do you see?"; "What do Vikings do all day?"; "If you were a Viking, how would you act at school or at home?" In doing so, we came to grips with stereotypes ranging from dress (the horned helmets of Hagar the Horrible and the Minnesota Vikings paraphernalia) to lifestyles (too busy plundering and killing to farm, trade or the like) to morals (Vikings by popular definition had none). Most stereotypes, if allowed to remain unchallenged, would weaken or invalidate the cultural reconstruction and make it difficult or impossible to appreciate the significance of the artifacts.

Our last principle is that the effective museum story invites cross-cultural comparisons, such as the contrast we have already noted between notions of what is decorative and what is utilitarian. It seems to us that promoting insights of this sort lies at the heart of museum education. The fragmentary study of other times, places or societies is meant ultimately to shed light on our own. The intent of all the storytelling and museum visitation is not to turn out squadrons of little antiquarians. Rather it is to equip children for enlightened participation in their own culture. The cultural comparisons suggested by a simple story can begin to marshall students toward this goal.

Three levels of educational materials were supplied to schools by the Minneapolis Institute of Art. Our Viking story, "The Day of the Gripping Bears," annotated with background information and teacher suggestions and accompanied by slides of selected artifacts, constituted the primary-intermediate level. For the lower junior high level, the authors prepared "The Culture Detective Game," in which students devise and interpret artifacts as "clues" to real and imaginary cultures. At the upper junior and senior high levels, students were guided through the succession of Viking styles.

A telephone survey of 100 participating teachers revealed that 82% of the sample used the materials provided, with 61% of these employing the first level. This suggests that the story format was judged by teachers to hold more appeal for older students than the authors had anticipated. It was gratifying to learn that 80% of the teachers used the materials before the museum visit, thus honoring the intent of providing anticipatory guidance for student perception. Some of the teachers reported that children entering the exhibition were excited by recognition of such things as "Helga's bears" described in the story and that their excitement was transferred to other artifacts in the exhibition. Ninety-seven percent of the teachers who made prior use of the materials felt that this provided an educational advantage, and 91% thought that students associated the story with the artifacts. Of those teachers who used the story, 84% indicated that they would use the story (or one like it) again.

The results of the survey, together with the enthusiasm which is still being communicated by teachers in unsolicited comments, serve to reinforce our conviction that storytelling, managed in accord with the principles we have outlined and exemplified, can lead students to appreciation of cultural artifacts which might otherwise be intimidating, uninteresting or confusing to them.

This program report and the Viking story appeared in Roundtable Reports, *V. 8, No. 3, 1983. The Drs. DiBlasio continue their work in Minnesota.*

HANDS ACROSS THE WATER: BOOK REVIEW

***The Art Museum as Educator*, Barbara Y. Newsom and Adele Z. Silver, editors, University of California Press, Berkeley, California, 1978. 830 pp.**

Helen Luckett, *Department of Leisure Services, Museums and Art Gallery Division, City of Southhampton, England*

To anyone with the faintest prejudice against America or museum education, *The Art Museum as Educator* must appear at first glance to confirm their worst suspicions. Here is a large and very heavy volume, apparently a cross between a concise encyclopedia and the most lavish and tedious of company reports. A quick flick through reveals a double column lay-out with two-colour printing and sub-headings in bold type announcing "The arts awareness theory of non-verbal learning," "How an aesthetic education curriculum package is developed," "The school in the Exploratorium," "Making and merchandising the Impressionist packages." There are few illustrations to divert or distract and what photographs there are convey a strong sense of *deja vu*.

To pursue an examination of *The Art Museum as Educator* no further than this would be to miss the most provocative and stimulating work on the subject yet produced. There is no doubt that this is an important book and at the slow rate at which art gallery education is progressing in this country it should remain a primary reference work for at least the next fifteen years. Subtitled "A Collection of Studies as Guides to Practice and Policy," it deals comprehensively with the problems of education in the art museum—problems which are by no means exclusive to North America but which are distressingly evident in museums and galleries in Great Britain. "Education" is understood to cover not just primary and secondary schooling but the whole range of educational possibilities presented by the art museum, from exhibitions and work with minority groups to highly specialized academic programmes devised with or for university and professional audiences.

As the preface clearly states, this book is not intended to be read from cover to cover. It has been "conceived as a combination reference work and textbook" and is excellently organized (the two-colour printing is in fact a definite aid to clarity) with very thorough indices. Divided into three general sections, "The art museum and its general public," "The art museum and the young, their teachers and their schools," and "The art museum and its college, university and professional audience," each consists of an introductory essay followed by a number of chapters on specific topics which contain annotated descriptions of individual projects or programmes, with bibliographies where appropriate. The 103 case histories described were chosen from 71 institutions of vastly differing size and scope, from the Metropolitan Museum of Art (annual attendance 2.5 million) to the Addison Gallery of American Art (annual attendance 35,000), "not because they were necessarily the best, but because they seemed to the Council on Museums and Education in the Visual Arts instructive and representative of a range of efforts." Both undeniable flops and obvious successes are included. They are prefaced by two short but pregnant essays on issues in art museum education and conclude with a "Proposal for a national center on museum education." Useful appendices give full details of the institutions referred to in the study.

One of the most valuable effects of *The Art Museum as Educator* is that it makes a decisive break with the Enid Blytonism of previous literature on museum education. It is neither lyrical nor cynical but is consistently and intensely self-critical. The dangers of pandering to politically emotive audiences, favouring an academic or social elite, resorting to gimmicks or the tendency to trivialize art are recognized, and the question "Is there a distinction between making art accessible and betraying it?" is central to the study.

> Art museums continue to focus their educational programs primarily on children, yet no museum staffs encountered in this project seem ever to have conducted research of their own to determine whether programs for children had succeeded, over time, in developing either lovers or practitioners of art.
>
> In a museum trying hard to break with tradition, being asked to lie down on a cold marble floor pretending to be a purple triangle may not always be a small child's happiest introduction to high art.

These are comments typical of the work and warnings which education officers in this country would be foolish to ignore. Other issues—the yawning gulf between many curatorial and education departments and the lack of responsible criticism of any art gallery activities except the largest exhibitions—should be attended to by the entire profession. The missionary role of the art educator is possibly over-stated, especially for anyone uncomfortably aware of the aggressiveness of some museum education departments, but in the context of a largely antipathetic professional climate (and hostility or disregard comes as much from educational authorities as from curatorial staff) and in view of the fact that "for many twentieth century people, art is difficult," this attitude is only too understandable, and very rarely prepares to crescendo into "passion, anguish, evangelism."

The Art Museum as Educator is the result of a project begun in 1972 by the newly constituted Council on Museums and Education in the Visual Arts, whose members include directors or presidents of all the more important American art institutions, an artist, a professor of art history and representatives from educational foundations. The project was concluded in 1976 and the case histories which it records were completed by 1974, but it is not a book which is likely to date significantly, a feat due mainly to the fact that the issues it raises are not easily capable of solution or dissolution. This is underlined by the very impressive editorial introductions to the various sections, of which Barbara Y. Newsom's contributions are particularly notable. Her judgments are exceptionally perceptive and her approach sensitive and sympathetic, yet necessarily stringent. . . .

Intended simply as a "starting point for other students, reporters and interpreters" in a field in which there are "no perfect programs, easy answers or ultimate solutions" it should be essential reading for all directors of museums and galleries, art curators, new entrants to the profession and to anyone concerned with the understanding and enjoyment of the visual arts and the museum or gallery's responsibilities to its public. Its application for education officers, whether museum or gallery based, is fundamental.

This book review appeared in Roundtable Reports, *V. 5, No. 1, 1979. It was then and is here reprinted with permission of the author and the* British Museums Journal. *Helen Luckett continues with the City of Southhampton.* The Art Museum as Educator, *now available in hardback only, can be ordered from The University of California Press, 2120 Berkeley Way, Berkeley, CA 94720. The price is $65.00 plus $1.50 for postage.*

AN EDUCATOR PREPARES

Linda Sweet

Museum education has changed fundamentally in the last 14 years and no longer do new or aspiring museum educators have to reinvent the wheel or learn their skills on their own. Programming in museums across the country is solid, often ingenious and geared to the interests and needs of various constituencies. Special exhibitions are accessible on many levels through interpretive techniques that are versatile and imaginative. The training programs that have been developed are respected and their graduates are sought after for positions.

When I started as an instructor at the Brooklyn Museum in 1970, I knew little about museums and less about teaching in museums. Although I had had prior teaching experience, initially lecturing to adult groups in a commercial gallery and then as an adjunct instructor at a local college, teaching was not a career for which I had prepared. But I did have a natural aptitude for it and I did realize that teaching with real objects was significantly more stimulating than teaching from slides. I learned later that museum education had a history and a small body of literature and that there were many dedicated individuals who had worked hard and long over the years to establish admirable programs. In 1970 however it was difficult, even impossible, for the new museum educator to learn much about their colleagues and their efforts.

I became a museum educator by observing other equally new museum educators; by visiting every museum I could, often on my own time; by collecting flyers, brochures and whatever written material I could find; by attending workshops, seminars and programs, none of which had direct application to my work; by taking courses in education and art education always at my own expense; by starting the Museum Education Forum in 1972 in New York City and by calling for the formation of the American Association of Museums Education Committee in 1973. It was a time of action and idealism, of optimism and expansion that allowed me and my colleagues seemingly unlimited opportunities to be creative.

Today some of the obstacles faced in 1970 remain, while some of the problems are new. In most museums, the permanent collections are still only minimally labeled and the opportunities for the individual visitor to learn on his or her own are sorely limited. In addition, activities initiated by the marketing and public affairs departments at time overshadow those of the education department. As a result, the education of the museum educator and the scope and role of the museum education department must continue to evolve. Professionalization is still at an early stage. Computer technology, advances in communication, and insights into informal education must be studied, absorbed and utilized. The body of knowledge relating specifically to education in museums must continue to grow. Most importantly, museum educators must recognize that they can take a dual role. Not only must they educate the visitors, but also they must recognize their unique position to educate and be useful to other museum staff as well.

Museum educators can apply their knowledge of the museums' audiences as well as their own skills in public relations and marketing to bridge the increasing gap between the mission of their institutions and the solutions devised to deal with management and financial concerns. Further, because the best museum education takes place in those museums where there is a supportive and knowledgeable director, it is important that those museum educators with the particular interest and ambition aim to be directors. Many of the skills most sought after today for heads of museums are the same skills developed by educators. As museum educators continue to develop their profession and as some move into other positions within the museum field, the impact and scope of the education department will only be increased.

MUSEUM EDUCATION—POWER AND FUTURE

Edeen Martin, *Associate Director of Programs, Mid-America Arts Alliance, Kansas City, Missouri*

I told several of my colleagues and friends about this article I was writing about the "Power of the Museum Educator." All these people —museum directors, educators, curators, gallery operators, artists, arts administrators and mothers-at-home—were conversant on the topic of museum education and consistent in their responses: "What power?" When I explained my thesis, they inevitably saw my point—or pretended to—and added their own observations and examples. In the end, we came to some conclusions: 1) Museum educators really do possess power but the exercise of that power is often frustrated beyond recognition by unsympathetic management systems; 2) Occasionally it is not in the museum's best interest for the museum educator to exercise power; or 3) Despite the good works and energy of museum educators that contribute to the greater glory of the museum, museum leaders remain unenthusiastic about museum education concerns. All of this is true, but why is it so and what does it say about the future of museum education as a profession?

It seems to me that the current situation began in the 1960s when factories were full of workers, cars were full of gas, schools were full of kids and minorities were queuing up for public attention. In an effort to provide the best for the children of all its people, the government looked high and low for relevant educational opportunities and found them in museums. Established to collect, preserve and display, many museums already had school tours and special teaching programs that could be used as seeds to grow more programs for more special audiences. State and federal money came to expand educational programs, provide interpretation of collections and develop new areas of outreach.

In addition, local governments began demanding increased attendance figures for increased appropriations. The tone of the times required that to be a great institution you needed to have great collections, yes, but a vast public as well. Like a tree falling in the forest, museums needed an audience to be heard. In order to meet this new need, the leadership of many museums expanded education departments with a bright new breed of para-professionals who wanted to help people get ideas from things. What was frequently overlooked then and continues to be misunderstood now is that an emphasis on "the people" and education requires more of a museum than larger classrooms and more parking spaces. It requires a fundamental shift in philosophy from object orientation to people-object interaction. Museums are, by nature, object-oriented. Curators who study and care for collections and directors who most often come from curatorial backgrounds if they have museum training, are committed to housing and increasing collections and to maintaining and increasing their museums' prestige in terms of curatorial concerns. They are more concerned with the objects than with staff relations or with the public interaction with the objects.

Museum educators, on the other hand, are trained in and, one hopes, adept at communication with people. However, they frequently lack the academic background, credentials and disposition necessary to advance curatorial scholarship. Consequently, museum educators appear limited in their prospects for advancement within the museum, and frequently are frustrated by lack of authority to back up their decisions and activities.

This sense of a lack of sympathy, authority and high position lead some to the erroneous conclusion that museum educators have no power. Museum educators have people skills and frequently are better at managing than the people who manage them. Museum educators can use their skills to manage from below—observing what motivates those above and what, from higher echelon perspectives, is good for the institutional goals. Furthermore, museum educators have a huge following. They can shift constituencies to their advantage. Directors must stick with more or less the same rich patrons, city fathers and corporate executives; and curators have their peers to impress. Museum educators can develop workshops for classroom teachers one semester, tours for retarded adults the next; they can organize a family afternoon film series and self-guide for one exhibit, performing arts events for another. Each activity adds constituents for both the museum and for the museum educator.

Museum educators also have mobility inside the museum and out. Since they are neither discipline nor media bound, they do not need to think about spending more time with, say, prints than they do with sculpture, more energy with manuscripts than with textiles. They do not study the object within its own category but rather as it relates to people and as it reflects its own circumstances. Because museum educators stand at the intersection of objects and audiences, they can find occasion to draw allies from many fields. . . . By working with programmers, public relations personnel and other cultural educators, museum educators can significantly influence the way their own museums and other related institutions interact with the public.

Last but not least, museum educators often have large staffs of docents, volunteers and part-time assistants to carry out their well-laid plans. In addition, they must occasionally supervise peers in developing projects that integrate resources of more than one department in the museum. These "employees" may not be the most willing allies and they may complain about the museum educators' heads if they are unhappy, but shrewd museum educators waste no opportunity to use their people skills to direct the team to achieve their ends.

I anticipate several changes in the museum field of the future in which strong museum educators can play a significant role. First, increased emphases on institutional self-assessment and accreditation have helped many museum managers focus on the strength of their collections and of their human resources while evaluating the museum's roles in the community. This increased emphasis on management combined with shrinking federal and state support will force museums to bring collections, programs and fundraising efforts into harmony. While the market for public programs may decrease, the influence of museum educators will increase. Museum educators will be able to spend more time developing programs for those most interested in material culture. They will be able to work closely with development officers to design programs of special interest to private funding sources. Public relations personnel and museum educators' tasks will merge as both seek to promote the institution and its collections.

Second, with increased demand for management skills and cooperation within the museum and between the museum and community, the opportunities for museum educators in upper level management will expand. Sincere reverence for objects and the ability to make them relevant, along with a demonstrated ability to handle people with divergent interests, will be important skills for the museum director of the future. And educators have those skills.

Third, our society has already passed through its golden age of durable objects. Increasingly houses, cars, furniture, plates and cups are designed with a specific life expectancy—they are not meant to last forever nor will they. Much of the most significant current art is ephemeral either in concept or construction. It emphasizes relationships between ideas and things rather than the narrative description of the idea itself. This phenomenon will eventually produce two kinds of museums. On one hand, there will be those institutions that have a primary objective to keep intact the disintegrating remains of a throw-away society. More and more sophisticated methods of conservation will be necessary to help reverse the effects of deterioration; extensive libraries of videotape and photographs will emerge to record fleeting artistic moments and objects that have vanished. On the other hand, there will be learning museums that rely on a few hardy objects for their collections. These institutions will teach visual literacy, instill respect for material culture and the environment, and provide an opportunity for artists and people to meet and to interact. Existing buildings will add classrooms and performance areas as the old Greek *museo* returns with a different face. The very essence of museum education will dominate these institutions even though the traditional position of museum educator may become obsolete.

It is absolutely essential that museum educators keep abreast of activities and plans of others within and without the profession to assist in developing realistic goals for museum educators and their institutions. In short, with planning there are many opportunities for the museum educator to gain and to use that power now and to expand that influence in the future.

This article appeared in Roundtable Reports, *V. 8, No. 1. Edeen Martin continues at Mid-America Arts Alliance.*

THE MUSEUM DOCENT

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The Church here is taken for the Church as it is docent and regent; as it teaches and governs. —Century Dictionary, art., "Docent"; from Archbishop Laud (1573-1645).

A museum is an institution founded to keep things for show. In the English of the seventeenth century it might be said to fulfil its purpose as it is *gardant* and *monstrant*; as it preserves and exhibits.

To exhibit objects is to do the needful to make them visible. But there are two ways in which things become visible—to the bodily eye and to the spiritual sight. Gazing upon them is one thing, understanding them another. To fulfil its complete purpose as a show, a museum must do the needful in both ways. It must arrange its contents so that they can be looked at; but also help its average of visitors to know what they mean. It must at once install its contents and see to their interpretation.

Hence, to express the full duty of museums it will be convenient to use three adjectives, and not two only. Reserving the word monstrant for presentation to the bodily eye, we need another for the sharpening of the spiritual sight. The business of mental preparation is called teaching, and the appropriate adjective is given in the quotation above. A museum performs it complete office as it is at once *gardant*, *monstrant*, and *docent*.

The docent office differs in museums of science and museums of art. We understand a fossil or a machine when we grasp the scientific or technical principles it is shown to illustrate; but whatever historical or professional interest a work of art may have, we do not understand it until we receive from it the impression the artist meant it should make upon beholders. Objects called works of art have meanings in the literal sense. They are one of the forms of human speech, one of the ways in which men utter their minds to one another. A fossil or a machine has meaning only figuratively. The one was not made my man at all, and the other was made, not to tell something to us but to do something for us. It is not enough therefore to understand an imaginative creation as we may understand a discovery or an invention. We must know beside what its maker intended it to tell us; and in order to grasp it as a work of art, this is all we need to understand from it. Its historical or professional significance is no part of the meaning it was made to communicate, however much—or little—either may aid toward the apprehension of that meaning. The docent duty of a museum dedicated to art is summed up in the revelation of the moods of sense and thought and feeling of which its contents are the records. In so far as it recognizes an independent teaching office, historical or professional, it treats itself, not as a museum of art, but as a museum of science or industry. With a certain danger to its usefulness, let us remember; for, in importance, a knowledge of the historical and professional principles illustrated in a masterpiece are to an acquaintance with the masterpiece itself as the crackling of thorns under a pot to the meal cooked by their burning.

The art museum as docent aims to help us read works of art as we would read books; that is, to help us divine what their authors meant to say. . . . The docent duty of a museum of art is not an accidental obligation, which it may or may not be called upon to fulfil according as its community is more or less instructed. It is a necessary obligation grounded in the nature of a museum as a permanent exhibition. Further, the docent duty of a museum of art is not of a piece with the education of the school, but radically distinguished from it by the selective nature of museum contents.

A museum is ultimately responsible for certain teaching because it preserves things indefinitely. Any permanent exhibition comes sooner or later to contain objects out of date, and the older it grows, the more it contains and the more out of date some of them become. The fullest understanding of these objects demands in the spectator a sympathy with the past; a sympathy in part, and always in major part, spontaneous and not to be attained by taking thought, but in part also, and often in necessary part, capable of attainment by premeditated effort, by what we call instruction. Such instruction it is the duty of a museum to assure to its visitors, whether by imparting it directly or by seeing that they can obtain it otherwise. Every museum of art, by its nature as a keeper of things for show, creates a certain educational need, and assumes a certain educational obligation auxiliary to its ultimate purpose. . . .

The school stands by its nature for relative excellence. School teaching is at once constrained to a secondary aim, and adapted to secondary powers. Collective instruction, or teaching imparted to a number of persons at once, cannot convey to all an equal comprehension of its theme, owing to the different teachableness of different intelligences. President Wilson, quoting a former colleague, has just reminded us that "the human mind has infinite resources for resisting the introduction of knowledge"; and within the finite resources of the teacher of a class is only the introduction of so much as may qualify his scholars generally to answer a limited set of questions. The instruction of the school tends unavoidably to aim not at education but at graduation. . . . Again, the recipients of school instruction are customarily the young. It is addressed not to intelligences at the height of their powers, but to intelligences in process of development. Education, technically so-called, aims both at applying incomplete tests, and at applying them to immature minds. As well by its method as by its field, the school from primary to professional stands for relative excellence.

The museum of art stands, on the contrary, for absolute excellence. It seeks to preserve only the best of the past. As docent, its duty is to aid its visitors, by the use of whatever means prove most effective, to assimilate certain of the highest achievements of minds at once mature and especially gifted. This purpose implies a docent and a disciple but neither a teacher by profession, nor class nor course nor recitation nor examination. It can be fulfilled only by a return to the natural sequence of question and answer between pupil and instructor.

The order is reversed in the attempt to teach classes in courses. The education of the school consists in answering questions before they are asked. Education really efficient consists in letting answers follow questions. This is the method of all the greater teachers of mankind. The distinction lies between collective teaching, compelled to aim at examination, and individual teaching, impelled to aim at explanation. The method of examination disregards, the method of explanation observes, the mental principle according to which we see only what we are looking for. It is the question in the mind of the learner that makes what he learns part and parcel of his mental equipment. The preliminary act, that of the delivery of the message, may be compared to the sowing of seed, in itself a barren deed. Education proper does not begin until the seed germinates in the arrest of some pupil's attention. The question follows, not as in the school, from the teacher, but from the pupil; and the answer to the question, not as in the school, given by the pupil, but contributed by the teacher, is the fostering care under which the seed once germinated may bring forth, some thirty, some sixty, some an hundred fold.

The use of this natural method hampers the school in discharging its obligation to graduate; but forwards the museum in discharging its obligation to educate. The highest achievements of men at once mature and especially gifted are what the museum has to impart. . . . The museum offers itself as docent not to a privileged few, but to every one according to his points of contact with the treasures it displays; and such points of contact, of one or another kind in infinite variety exist in every one. . . . The museum cannot teach under all conditions, but alone when one or another interest is awake in one or another visitor. In the nurture of these individual interests lies its office as docent.

The inappropriateness of school methods . . . to this office manifests itself in four ways. First, in the dulling of the sense of perfection in the docent representatives of the museum. The hard intellectual labor of applying halfway standards to undeveloped minds inures the spirit to imperfection; and whoever the disciples and however taught, the docent function cannot to good advantage be performed as an exclusive office. The education given by a museum of art should always be the partial occupation of persons engaged also in productive labor in competition with equals. Even the whole body of those whose daily duty it is to keep and augment and study its collections may not suffice for the work. The appeal of every object of art is to the spiritual kin of the artist, and he may often lack blood relatives on the staff. . . .

Second, the use of school methods by a museum misdirects its docent work. School methods are adjusted to the needs of youth; works of art are not. They were not made by children, nor, unless by exception, for children; and no aid can enable children to comprehend them fully . . . . The museum that treats its docent office as a duty chiefly owed to youth stints the children of a larger growth who could best profit by its instruction. Dr. Goode writes of museums in general: "I should not organize the museum primarily for the use of the people in their larval or schoolgoing stage of existence. . . . School days last, at the most, only from five to fifteen years, and they end with the majority of mankind before their minds have reached the stage of growth most favorable for the reception and assimiliation of the best and most useful thought." (Goode 1897) School classes marshalled through museum halls may afford gratifying statistics, but the invisible census of educational result would make the judicious grieve. The practice in museums of art has the same foundation and the same limitations as the attempt to make monuments of literature into subjects of school instruction. . . . Freshness and naivete are, indeed, conditions necessary for any understanding of a work of art; but they are not conditions sufficient for its assimilation. The soul of an artist can be evoked from his work only by his spiritual peers.

An Indian saying compares the artist to the moon which can draw the sea but makes no appreciable difference in the level of a well; and, it may be added, can move neither if frozen. The dulling of the sense of perfection which handicaps the teacher by profession needs no proof more irrefragable than is given by school editions of many literary classics. To attempt to put within adolescent grasp masterpieces embodying the utmost reaches of thought and refinements of expression, the fruit of the richest experience, is treachery to art in the museum as in the class in literature. The practical necessity of expurgation in both cases should be warning enough of the unwisdom of the enterprise. To the adolescent the sex-impulse is but just beginning the long course of its irradiation through the whole of life which fills the consciousness of the adult with ineffable echoes "from Heaven across the World to Hell"—as Goethe describes the action of Faust. To place before a boy or girl a work of art containing, as most do, ingredients from this all-compelling and all-comprehending fact, is to invite its misunderstanding. Whether the process may not morally weaken also is often an open question. There is solid psychological ground for the objection, intemperately voiced from time to time by a few fanatics, to indiscriminate museum visits by school classes. The peril should not be blinked by museum authorities, but should suggest the inquiry whether the whole "educational racket"—as the profane might term the attempt to turn school children into habitues of museums—does not rest upon an assumption, due simply to mental inertia—the assumption, namely, that whatever the adult can assimilate to his profit, can and should be presented and expounded to the young.

Third, the use by a museum of school methods devitalizes its docent work. The purpose of the docent is to lead his disciples on to enjoyment. A work of art is the embodiment of a creative joy, or as a work of art it is worthless; and to get it enjoyed as it was made to be enjoyed is the be-all and the end-all of museum instruction proper. The purpose of the teacher is to impart knowledge; a divergent aim, and under school conditions in a measure incompatible. . . . The scholastic atmosphere is in three ways hostile to the mood of joy. The contagion from the instructor is more or less in default. To guide learners along well-trodden paths of truth is far from the thrilling pleasure that Bacon, after Lucretius, found in standing on its vantage ground. Again, the scholastic atmosphere is an atmosphere of more or less compulsion, and again, of more or less self-consciousness. Collective instruction presupposes uniform exercises, none exactly responding to the needs of any pupil; and the shadow of the pedagogic disapproval chills the spirit turned inward upon the thought of its own relation to a standard. Unless a museum is to fail essentially in its teaching office, its instruction must be accomplished in holiday mood, without drudgery for the docent, and without tasks or tests for the disciple.

Finally, the use of school methods in a museum fosters a misconstruction of its docent obligation. Since schools are founded to impart systematic knowledge or practical skill, the museum may easily be thought bound as docent to teach the history, principles, and practice of the arts it represents, or even to exert a commanding influence on their current development. Yet both ideas are misconceptions, the first excusable, the last egregious. As a permanent public exhibition a museum is bound to see that its community has access to means of understanding its exhibits. But the teaching of the various disciplines they illustrate, theoretical and practical, is a wholly different business, without basis either in *gardant* or *monstrant* functions. The mistake of confusing it with them is excusable because the obligation to see that works of art are publicly understood has awaited the creation of institutions to preserve them for public benefit. Before museums existed, the artistic public, the spectator, the other half of the incomplete being we call an artist, had no official representative. Instruction in art meant only the inculcation of art history and theory and the training of embryo painters and sculptors. The fine art of beholding grew wild. Today museums are founded everywhere in this country in younger communities with only the scantiest opportunities for the upbuilding of permanent collections of fine art. So placed a museum becomes less an exhibition than a centre for artistic interests of all kinds; and its docent office presents itself as the duty of theoretical and technical instruction. Nevertheless, the condition is ephemeral, the sign of an undeveloped machinery of civilization. It joins functions alien in method and scope, and in a measure antagonistic. The museum as docent eaches objects; it instructs toward its exhibits. As the purveyor of general knowledge about art, it teaches subjects; it instructs from its exhibits. Again, a museum official's duties cover many fields beside the history and theory of art; and the history and theory of art cover many fields beyond the collections in his care. A further radical difference separates an exhibition from a school of practice. The one belongs to the contemplative life; the other to the active life. The museum is the home, not of the artist—the creator—but of the critic—the spectator. The museum is catholic in spirit; the technical school separatist. The judgments of artists, one upon another, are, as Stendhal suggested, so many "certificates of resemblance." Technical instruction tends to make the museum one-sided; the museum to make technical instruction superficial. These are the conclusions of experience. . . . While freely offering its aid to schools, both theoretical and technical, the museum will best perform its essential duty under separate management.

The other misconception of the docent office of museums—that which assigns them the high duty of presiding over the artistic production of their time and place—rests upon a beclouded notion of how the artist works. He sees through other eyes only to use his own to better advantage thereafter. Only in the measure in which he can take up into himself what others have wrought will his own work bear comparison with theirs. To guide him after preparatoy years would be a fatal impertinence in any institution. . . . The return of the artist to nature means a transition from the contemplation of that which has pleased others to the discovery of that which pleases himself, and out of this immediate joy every viable product of fancy springs. Museum officials as arbiters of what he should paint or carve would be even more hopelessly out of place than students of literature as arbiters of what he should write. Museums have no mission to make the fame of artists. They are founded to secure it when made by the interested public.

The docent office of the museum, conditioned by these results, thus outlines itself. Mindful of its purpose to aid toward the spiritual assimilation of some of the highest things, it should aim not at attainment, but at progress, not at graduation, but at education. It should be carried on, not as the sole office of a few persons, but as the duty on occasion of many chosen representatives. It should address itself chiefly to minds already mature and only under restrictions to children. It should be undertaken in the spirit of free intercourse, not in that of compulsion, in the spirit of play and not of work, seeking to offer not what the docent wants to teach but what the spectator wants to know. It should not ally itself with technical instruction, and above all should renounce the ambition to control the productive artist whether through patronage or criticism.

What, then, shall the museum as docent say? Of what subject matter shall its speech consist? . . . Is it not to destroy the power of a work of art to make it the subject of open conference? To point out sources of joy acts admittedly to dry them up. The mental law by which pleasure vanishes under reflective analysis has been a tale retold in all ages—in antiquity by the story of Cupid and Psyche, in the Middle Ages by stories like that of Lohengrin and Elsa. It would appear then a folly to attempt by any verbal comment on a work of art to lead another on to joy in it. . . .

The nearest to a work of art is he who apprehends it from afar. Without question the mood in which a disciple is left by any exposition differs materially from the mood which the artist has sought to convey by it. No exposition is more than a skeleton of complete assimilation; and none, moreover, is through traffic with the artist's mind, but a traffic by change of trains with all its possibilities of error. Yet every pertinent exposition contains elements of real assimilation; nuclei of understanding which when we turn to the work again and forget them may lead toward it. The wind of doctrine, while it dampens the fire kindled by the artist, fans sparks therein from which, when it dies away, the whole may again spring into flame. The full truth seems to be that although analysis temporarily deadens appreciation, it tends to drop out of mind, while the understanding which it both quickens and adulterates tends to remain. Within closely guarded limits, only to be observed by a spirit of instinctive reverence, it would appear then that the docent office has a real, if modest, right to exist.

M. [Auguste] Dorchain's exposition [of Hugo's poem "Extase"] is a guide to the docent as well by what it omits as by what it includes. It gives nothing of Victor Hugo's personal history, of his time, or of the special circumstances under which the poem was written. These all belong to the real world; the poem to one "that never was on sea or land." . . . An English workman, a passionate admirer of Tennyson, urged to ask an introduction to the poet, exclaimed, pointing upward: "You can't reach Tennyson! He lives there!" Longfellow once aptly compared a poet in his life and in his works with a lighthouse by day and by night. We do not spend time over the lighthouse buildings if our aim is to pick up its beam.

M. Dorchain, again, does not give us generalizations about the poem as a whole, but observations upon its details. The one method comports with an ignorance of the work of art discussed which at once implies and engenders indifference to it; the other demands an acquaintance with it which at once presupposes and communicates enjoyment of it.

In the field of the objective arts, the histories are a mine of illustrations. Two identical and empty generalizations are the sole words (in translation) of one work of established authority upon two radically unlike masterpieces of sculpture—the famous equestrian statues of Gattamelata and Colleoni. One is "full of energetic character and bold life"; the other is "characteristic to excess but full of life and power." Not to have been struck by their difference is not to have penetrated either. Nor does the phrase "absolute relaxation of sleep," applied in the same volume to Michel Angelo's figure of Night, penetrate the meaning of an attitude in which one hand has already slipped from beneath the forehead and the elbow is in the act of gliding down the thigh. The figure has been compared to the restless Ariadne of the Vatican, and is even more unrelaxed. Plainly, in this standard book, the broad stroke was used because either congenital incapacity or limitations of a mistaken task hindered the use of the fine. Generalities may be good servants in the docent office but they are bad masters.

M. Dorchain's example again teaches that the docent must very rarely praise directly. To affirm that something is beautiful is to announce that the speaker takes pleasure in its contemplation. The docent either cannot or can point out sources of that pleasure. If he cannot, the announcement will not tend to awaken it, but rather will emphasize its lack in the disciple, either pique him, and dispose him away from enjoyment or invite him to sham thereafter a pleasure which he does not feel. If the docent can indicate its origin, this is his business, and the preliminary statement of his own good fortune is for the most part a gratuitous futility. To awaken a sense of beauty it is essential to proceed by setting causes in action, not by commanding their effect. If the docent's enthusiasm is real—and if not he is no docent—it will pierce through the soberest language he may choose. The familiar history of art already quoted again offers examples of what to avoid. The following forty-six words constitute one quarter of the whole number devoted in this volume (in translation) to the Sistine Madonna: "wonderful form—glorious raiment—heavenly apparition—lovely angelfaces—majesty of his eyes—saintly Pope—lovely demeanor—graceful head—revelation of power and glory—enchanting angel-boys—last touch of beauty to this magnificent work—deepest thought—profoundest insight—completest loveliness—the apex of all religious art." In all M. Dorchain's exposition on the contrary there are but four phrases which can be called open praise. . . . All else in the long analysis is a plain description of the make of the two stanzas, yet conceived with an admiration so ardent that its contagion is irresistible.

The docent must be even more circumspect in the use of dispraise either direct or indirect; and M. Dorchain is again an example to folow. He tells us neither that the poem is (or is not) of Victor Hugo's best, nor (unless by a single playful hint) that Victor Hugo is the greatest of

French lyrists. Such statements are rife in all descriptive books on art, full of references to its blossoming and decadence. Yet they convey barren statistical information, empty of all illuminating force. They put before the mind a simple quantitative picture made up of heights and depths. The sole pointer they offer a disciple may be thus expressed: "A given amount of attention will be best repaid by this work or this artist." To which three rejoinders are in place: first—Such is your opinion, but who will guarantee its justice? Yesterday proclaimed Murillo the greatest Spanish painter; to-day proclaims Velasquez. Second, admitting the infallibility of the claim you represent, what are the merits that make up this matchless sum? Double stars do not constitute a guide book. The feast of which we also wish to partake, you point us to, but do not set before us. It has been acutely remarked that critics sometimes "use works of art only as a stimulus to their memories of related objects." Their minds are so full of relations that they are incapable of apprehending the things between which the relations subsist. Third, supposing your opinion infallible, and the feast partaken, are there no other viands of the spirit spread on other tables? Toward these your words of indirect dispraise do not invite us; they rather disillusion us about them. When you call one stage of art still imperfect, or another past its prime, we are vexed with the question—"What more?"—when you call another the highest, with the equally disappointing query—"Is this all?" . . .

Another pitfall of artistic exposition is wholly avoided by M. Dorchain. The docent must not fancy it any duty of his to teach the laws of beauty. In so doing he would commit a psychological solecism of the first order. A disciple may easily think that if he only knew the general principles according to which certain things give pleasure he would be armed to perceive their beauty; and a docent may be inclined to ask of what else can a course of preparation for the enjoyment of a work of art consist than a discourse upon the laws of beauty as exemplified therein. Yet nothing could be more useless and in fact prejudicial to the docent aim. It is useless because there is no causal connection whatever between abstractions and the phenomena they collate. To inculcate a mental law does nothing to bring about its fulfilment. What fulfils it is the presence in the mind of the causes whose effect the law formulates. Does it help us see jokes to learn that the phenomenon of the ludicrous is due to a datum unexpected under a certain interpretation of circumstances which prove to have another interpretation in which the datum becomes expected? Yet this is the content of theories of the Comic. In the instance of beautiful things, it is the apprehension of those aspects of them that give pleasure which furnishes the *why* of the beauty of the work to us. The generalization itself according to which they do so has no such power, and our ignorance of it will be no handicap to our enjoyment. A knowledge of it, on the contrary, will be such a handicap. It calls the mind away from the concrete object, the bearer of the artist's thought, to a region of abstract and colorless idea in which he has had no part, and in which if we wish to follow him we will take no part. In M. Dorchain's exposition, as was to be expected, the enunciation of laws of beauty is conspicuous by its absence.

The chief positive factor in effective exposition is the labor of directing the disciple's attention upon vital elements in a work of art, of insuring that it is really perceived in detail, and taken in in its entirety. Equally important in a negative way, and in practice naturally mingled with it, is the labor of clearing away difficulties of comprehension. . . . It is hardly too much to say that the first contact of any one with any museum object—any picture, any statue, any fragment of architecture, any product of minor art—has its share of the disagreeable state of mind we call bewilderment. To be bewildered over a thing is to make unsuccessful attempts to understand it, and here as everywhere ill-success is not a pleasure but a pain, lighter or severer as the case may be. Bewilderment continued becomes more and more a load on the spirits. Failure to understand one feature after another in the work we are inspecting first produces boredom and then exasperation with it—both of them moods which are to the creative joy of the artist as oil is to water. It is the business of the docent to prevent this untoward outcome at all hazards; but as evil is always best overcome with good, the negative effort will not be a labor by itself, but a by-product of the labor of stating the right interpretations at once and before they can be missed by the disciple. The main task of the docent is therefore an interpretation which shall at the same time be an explanation.

His general method will consist, as M. Dorchain's does, in going over the work of art in detail and in review, and making sure that it is thoroughly apprehended as the artist would have it, both by eye and mind. This ideal is rarely even approached. Why are not Michel Angelo's expressions of the fop in his statue of Adonis and the sot in his statue of Bacchus matters of common remark? Because students of him do not look at his works. The docent is one to whom "the visible world exists," as it did to Theophile Gautier; and who seeks to make it exist to others. By a convenient distinction the purpose of an artist may be divided into a sensuous and an imaginative intention. He may mainly, or wholly, aim to give the beholder certain sensations in a certain arrangement, to which may be added almost invariably the emotional mood which these sensations awaken. Or he may mainly, though never wholly, care to impart the inferences which are naturally drawn from the forms and colors which make up his work as an object of sense. The first alternative is that of direct, or free beauty, of which the cardinal exemplar is music; the second, indirect or representative beauty, of which the cardinal exemplar is literature. The direct element is essential also to belles lettres, especially to poetry. . . . In the objective arts—alone represented in a museum—the elements of sense and imagination are more nearly equalized, one or the other predominating as the artist's temper dictates. Whistler's "Nocturnes" and "Arrangements" illustrate in painting the gravitation toward musical structure which Walter Pater finds in all the fine arts. Interpretation by a docent will therefore not aim exclusively, or even in many cases mainly at making plain to a disciple the so-called "story" of the picture or the statue. But he will include both elements if he take care to see that every vital line and surface and shadow and tint is at least perceived by the disciple; and shall be understood as well, if he divine an intention in the artist going beyond the sense impression to its imaginative fruit. He must say not only "the shadows gather here" or "every tone in the picture is reddened" but "an endless plain stretches beyond, with occasional glimpses of the sea"; or "the saint is Catherine and the wheel a symbol of her martyrdom." By this guidance the burden of bewilderment will be lifted, and the work of art seen with that degree of minuteness, breadth, and deliberation through which alone it can yield its impression, and which, nevertheless, is habitually denied it even by those who aspire to speak and write. Thus only are works of art both recommended and taught. The disciple grows into the other half of the incomplete being we call an artist; and by his beholding gives the work a new lease of life in another spirit.

The experience of docent work in a museum suggests three practical rules. The essential office of the docent is to get the object thoroughly perceived by the disciple. Hence, draw attention *to* the object first; talk *about* it afterwards, and only if occasion offers. In the words of Francois Coppee, "Voir d'abord; ensuite, savoir"; else your auditor's attention will be divided between trying to decipher the object and trying to follow you. Again, the admiration of the docent is like the latent fire of a match, imprisoned in his head, and not effective without an interlocutor as igniting surface, and even an auditor beside as tinder. When these are seen to in advance, there will nearly always be an extended blaze. Hence, let the docent of a group provide himself at the start with a questioner (to be kept within bounds) and a hearer. Again, a formal talk upon a work of art may to advantage be repeated, but only up to the point at which further repetition does not improve it. This point will be reached after not very many repetitions. Stendhal has somewhere written that seventeen was about the number of times that one could see a picture before it began to lose its effect. Perhaps we may be said to know a work of tangible art well when on closing the eyes we can reproduce it in some detail in imagination.

The official recognition by museums of the duty of oral instruction upon their contents dates from very recent years. The initiative was taken by a museum of art. In Boston, in 1895, the interpretation of museum exhibits by museum officers was under consideration at the Museum of Fine Arts. Expert guidance in the galleries had already been privately advocated. In the following year, 1896, the Trustees consented that volunteer representatives of the Twentieth Century Club of that city should meet visitors in the galleries of casts to give information about the reproductions of sculpture shown. The experiment was carried on for three months under the supervision of an officer of the Museum, who reported to the Trustees recommending that if continued the service be made official. For ten years this was impossible. The studies and plans for the new building of the Museum fully absorbed the energies of the administration. In June, 1906, the Museum Bulletin at last announced the project, and applied the forgotten English adjective "docent" to the future duty. Meanwhile a similar effort had been undertaken by volunteers at the Louvre in Paris. In remarking upon it in December, 1901, the "Chronique des Arts" suggested that officers of the museum should conduct the instruction. "Thus the public would learn to see better, and to comprehend better, from those to whom long familiarity and laborious achievement have given the privilege of becoming the intimate friends of our masterpieces." Two years later, in September, 1903, the Mannheim Conference of Museum Officials received a number of reports upon like volunteer movements in German museums. Finally, in April, 1907, gallery instruction was made an official function at the Boston Museum. The Bulletin of that date announced that an assistant in the administration had been appointed, under the title of "docent," to the additional duty of giving visitors in the galleries information about the exhibits. Similar appointments with the name of "museum instructor" followed within a year or two at two museums in New York, one a museum of science—the American Museum of Natural History—the other a museum of art—the Metropolitan. The opportunity of service was welcomed by other museums throughout the country, and the new word "docent" has since become widely accepted among us in the new sense of an official commentator on things shown. A docent is one who explains exhibits. From the beginning this term has signified not an official post but an official duty; not a functionary but a function. All of the officers of the Boston Museum, most of their assistants, and many friends have taken part in the service in the ten years since it was begun. In England, in pursuance of a suggestion offered in 1910 by Lord Sudeley, an official "guide demonstrator" was in 1911 appointed at the British Museum, and the system was later under consideration at the National Gallery and other museums of art in London. Professor Reau, in France, writes that it is their "constant attention to popular education that forms the chief originality of American art museums," the official recognition of the duty "being almost unknown in the museums of France and Germany." . . .

In American museums of art, gallery instruction is one factor in a widespread recent movement for their utilization for educational purposes. Luther is credited with comparing public opinion to a drunken peasant on horseback. Righted on one side it falls toward the other. The rude comparison has an aptness illustrated once more in the history of museum economy. Museums of fine art began by subordinating their role of showing to their role of keeping, their *monstrant* to their *gardant* office. This was the magazine era of museums, when they were built and arranged with chief reference to the preservation of their contents. These were the days of closely restricted access, of crowded rooms and walls, of great cases with multifarious contents, both arranged in each other's way, of light openings insufficient and dazzling. In large measure awakened since to the absurdity of this shortsightedness, museums have inclined toward the other possibility of error: that of subordinating their role of showing to their role of teaching, their *monstrant* to their *docent* office. To the magazine era has succeeded—notably in this country—a school era, when museums of art are managed with conspicuous reference, if not chief reference, to instruction by means of their contents. This is the day of the employment of public collections as apparatus in school and college courses, of omnipresent and obtrusive labels, of the obstruction of galleries by copyists and by classes under preceptors, of lecture-rooms and classrooms, and of detailed programmes for their use timed to the educational year. The museum of fine art is greeted, in words likewise applicable and likewise inappropriate to the church, as "the crown of our educational system." An end will come in time to this opposite and equally absurd shortsightedness. The primary aim of exhibitions of art is to bring it about that certain artistic intentions shall be apprehended by the spectator of the objects fashioned to embody them. The conservation of the objects and the instruction of the spectator are subsidiary to this purpose; their simple display to him in part accomplishes it. A museum preserves its contents *in order that* they may be taken in by eye and mind; and instructs upon them *in order that* when shown to the eye they may be grasped by the mind. Should it install its contents even to their hurt and without commentary, it would still in a measure attain its purpose; while if it kept them never so safely and interpreted them never so wisely without ever letting them be seen, it would wholly fail in its aim. The museum *gardant* and the museum *docent* are means; the museum *monstrant* an end.

The beginnings of a natural treatment of public exhibitions of fine art may be descried in the subordination by museums of the aims of safe and compact stowage and of didactic effectiveness to the aim of display. When they install fewer objects at once, in more congenial surroundings, with a greater regard for the limitations of the human sight and muscles; when they give a less conspicuous place to labels and other machinery of teaching and recognize that the proper educational office of a museum of art is instruction toward and not from exhibits, and the paramount interests in their keeping those of the adult public, the three functions, *gardant*, *monstrant*, and *docent*, will at length take on their definitive status.

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This article appeared in Roundtable Reports, *(Spring) 1977. It is an abridged version of "The Museum Docent" which was first published in 1915 as part of the Proceedings of the American Association of Museums, V. 9, and later reissued as a chapter in* Museum Ideals of Purpose and Method *(Boston: Museum of Fine Arts, 1918). Benjamin Gilman, who was born in 1852 and died in 1933, was Secretary of the Museum of Fine Arts in 1920.*

WHO IS BEN GILMAN?

Ken Yellis, *Associate Curator of Education, National Portrait Gallery, Washington, D.C.*

It's a little eerie to have to defend yourself to someone who's been dead almost half a century. The feisty ghost in this case is Benjamin Ives Gilman, whose somber voice from beyond the grave continues to call museum educators to account.

No one, living or dead, is more qualified to do so. For it was Gilman who, at the turn of the century, led the movement that turned American museums inside out to meet their audiences. He invented—if that's the word—museum education and one hesitates to disagree with him for that reason alone. One hesitates, too, because of the solidity of Gilman's prose; he wrote with the tendentious self-assurance of a Brahmin pedant, with whom you disagree at your peril. Gilman's firm confidence in the traditions, the values, and, most important, the *culture* of Western Civilization suffuses every line of his mordant prose.

But Gilman is wrong, or at least wrongheaded, in much that he says, and it is important to say so. He was an elitist, an Edwardian, and a snob, whose purpose was to so order museums that those who had or could be expected to develop the gift of appreciation could properly "see" those great works of art which our civilization's mightiest minds and most skillful hands have labored to produce. . . . The burden of Gilman's message is this: There is but one right way to interpret an art object, and not everyone is capable of doing it. "Whatever historical or professional interest a work of art may have," he writes, "we do not understand it until we receive from it the impression the artist means it should make upon beholders . . . and in order to grasp it as a work of art, this is all we need to understand from it." From this comes what Gilman calls the museum's docent obligation "to help us read works of art as we would read books; that is, to divine what their authors meant to say."

. . . Surely there are many valid approaches to a work of art. Even in the relatively rare instances when we know the artist's ultimate purpose, does that knowledge infallibly offer the most direct access to an "understanding" of the object? Are all artists equally conscious of their purposes, not to mention equally skillful at accomplishing them? Are the abilities of all artists invariably matched by their judgments? Are the artists themselves, in effect, their own best—their only—true critics?

Gilman's exclusivity, I think, disturbs me more than his absolutist view of truth. "The museum," he writes, accurately enough I suppose, "cannot teach under all conditions, but alone when one or another interest is awake in one or another visitor." But, for Gilman not all interests or interested persons merit the museum's concern. Museums ought to be rated "X":

> School methods are adjusted to the needs of youth; works of art are not. They were not made by children [which certainly contradicts what I've always heard about Mozart], nor, unless by exception, for children; and *no aid can enable children to comprehend them fully*. . . .

In other words, sorry, kids, it's all or nothing. Only full understanding is worth the museum's effort; with art, you either know or you don't know. In addition to his ordinary Edwardian prudery, Gilman clearly believed experiences are best withheld from us till we are "ready" for them.

But we all know that experiences can be absorbed in part, may be stored, can be built on, can be fit into a larger pattern later on, may be relished even if not fully assimilated or comprehended. And what does "ready" *mean*, anyway? Who's to say when I'm "ready" for a certain experience? God forbid we should have but one chance to grab for all that gusto!

I stress my major differences with Gilman—who undoubtedly could hardly care less—because of the impact "The Museum Docent" had on me when I first read it last spring and when I reread it now. Among the maddening and outrageous things he says, he says important things as well:

> The docent office of the museum . . . should aim not at attainment, but at progress, not at graduation, but at education. It should be carried on, not as the sole office of a few persons, but as the duty on occasion of many chosen representatives. It should address itself chiefly to minds already mature and only under restrictions to children. It should be undertaken in the spirit of free intercourse, not in that of compulsion, in the spirit of play and not of work, seeking to offer not what the docent wants to teach but what the spectator wants to know. It should not ally itself with technical instruction, and above all should renounce the ambition to control the productive artist whether through patronage or criticism.

To much of that I want to say, Amen!

But perhaps this affinity is more imaginary than real. Regardless of his rigid interpretive framework, his absolutism, his snobbery, and so on, Gilman's fundamental tenet is the centrality of *the object* in museum teaching. We should instruct, he says again and again, from the object *outward*: "The museum *gardant* and the museum *docent* are means; the museum *monstrant* an end."

For us, however, it is all too easy and all too tempting to teach, not *from* the object, not even *about* the object, but to use the object as the occasion, the *excuse* for teaching something else. Gilman, I would hope, could forgive us for letting teenagers see images of naked people, for keeping statistics, for disbelieving in absolute truth, and for various other peccadilloes. But he could not forgive us for forgetting that the museum *monstrant* is why we are all here.

Marlene M. Robinson, *Education Specialist, National Zoological Park, Washington, D.C.*

In differentiating between collective instruction and an inquiry approach, Benjamin Ives Gilman wrote that the first "consists of answering questions before they are asked and [the second] in letting answers follow questions." This analysis remains apt today although the context has shifted. Gilman couched his statements in the context of "museum" versus "school" teaching, whereas we now find advocates of both formats within each of the two institutions. Gilman saw school education as unavoidably channeled toward graduation, at the expense of true education; and he saw the museum as having the potential, indeed the obligation, to give access to an understanding of its exhibits.

He saw that both museums and schools were limited by the nature of their goals, but I submit that both were even more limited by the nature of their *attitudes toward the learner*. An educator who decides what should be imparted and proceeds to deliver the message without any direct contact with the learner is obviously only concerned with the retention of facts. On the other hand, the educator who observes the learner and, accepting the principle that we see only what we are looking for, provokes questions in the mind of the learner, has the opportunity to bring about true understanding of the object at hand.

In looking for quality in education, Gilman perceived that it is the question in the mind of the learner that makes what he learns part and parcel of his or her mental equipment. Finally, and very important, Gilman did not neglect to prescribe for his docents how to lead the learner into the inquiry process. First get the learner *looking at the object*, he says; talk about it afterwards.

Joseph Reis, *Program Development Specialist, National Gallery of Art, Washington, D.C.*

I imagine an Edwardian setting for Benjamin Ives Gilman as he writes about the docent role in museums of art. His elegant style with its high sense of self-confidence and unflagging assuredness draws me in to believe as he believes, that there are certain absolutes in life, which the dictates of station and social class ably demonstrate, from which everything of any value or consequence flows. Difficult as it is to suspend my disbelief, to allow myself to be transported back to a time before I was born when the material and the spiritual world embraced each other more happily than now; difficult as it is for me as a product of "education for democracy" to share the sense of that more perfect consciousness existing as it did before the great wars, before social security and income tax laws and long before equal rights and Watergate; difficult as it is, once I allow myself to yield to the sensuous, arabesque form of language and idea, then, I can hear what Mr. Gilman is saying as I might hear the ocean in a sea shell, though softly, with compelling clarity:

> . . . the use of school methods by a museum misdirects its docent work. School methods are adjusted to the needs of youths; works of art are not. They are not made by children, nor, unless by exception, for children; and no aid can enable children to comprehend them fully. The museum that treats its docent office as a duty chiefly owed to youth stints the children of a larger growth who could best profit by its instruction . . . School classes marshalled through museum halls may afford gratifying statistics, but the invisible census of educational result would make the judicious grieve.

My God! It's true. Kiddie tours are absurd! Looking at pictures is far different from seeing art.

> The docent duty of a museum dedicated to art is summed up in the revelation of the moods of sense and thought and feeling of which its contents are the records. In so far as it recognizes an independent teaching office, historical and professional, it treats itself, not as a museum of art, but as a museum of science and industry.

How can we blunder on with all the historical baggage, the provenance and pedigree games, the supercilious cliches that modify themselves to this or that degree. To have art is not to be had by art. How can we find the way?

> The essential office of the docent is to get the object thoroughly perceived by the disciple. Hence, draw attention *to* the object first, talk *about* it afterwards.
>
> Is it not to destroy the power of a work of art to make it the subject of open conference? To point out the sources of joy, acts admittedly to dry them up. The mental law by which pleasure vanishes under reflective analysis has been a tale retold in all ages.

It comes to this then: art is for the mature mind and the refined spirit; docent and disciple are linked by a shared experience that transcends the conventions of historical incident. Art is "pure abstract nothing but itself as art." I believe these things. I see it now. Let's clear away all that's superfluous in the museum: children's programs, gallery tours, and lectures. . . .

> When they install fewer objects at once, in more congenial surroundings, with greater regard for the limitations of human sight and muscles; when they give less conspicuous place to labels and other machinery of teaching and recognize that the proper educational office of a museum of art is instruction toward and not from exhibits, and the paramount interests in their keeping those of the adult public . . .

Yes, I hear you Mr. Gilman. But wait! In sixty-two years our society has changed substantially. Museums have changed too. Haven't they?

These letters to the editor appeared in Roundtable Reports *(Fall) 1977. Ken Yellis is now Curator of Education at the National Portrait Gallery. Marlene Robinson is a museum consultant outside Philadelphia, Pennsylvania. And Joseph Reis continues at the National Gallery of Art.*

PUTTING THE MUSES BACK INTO MUSEUM MANAGEMENT

A Seminar Offered by* Dolo Brooking*, Director of Museum Education, H.F. Spencer Museum of Art, University of Kansas at Lawrence

Mary R. Allman, Diane L. Dimkoff, Gloria G. Gerace,
Debra J. Johnson, Patricia A. McNeill *and* Kathleen M. Philbin
Graduate students in the George Washington University,
Museum Education Program, Washington, D.C., 1979-1980

Dolo Brooking thinks of herself as an innovator. She is almost fervent about taking the holistic approach to museum education. "Musing in Museums," a two-year project funded by the National Endowment for the Humanities and undertaken by the Helen Foresman Spencer Museum of Art, provided Brooking an opportunity to realize her professional commitment to interdisciplinary programming. The Muses project combined the arts, sciences and humanities into exhibits, gallery talks, lectures, self-guided tours, workshops and performances by musicians, mimes, actors and storytellers. . . .

"Creative programs, people, and the leadership to develop them are natural and necessary allies," Brooking stressed, citing the need for creative endeavor at three levels—the personal, the institutional and the national. Regarding the personal level of creativity, Brooking candidly discussed the concept of Significant Emotional Events (SEE), a theory developed by the management consultant, Morris Massey. Massey suggests that we study the SEEs that occurred when we were from eight to twelve years old. These events combine to create the value system we hold throughout life. . . .

Brooking shared several of her self-revelations (SEEs) with her audience. She professed these to be the "harbingers" of her work as a museum educator. The revelations she gleaned from her SEEs (an intriguing play on words since one *sees* in a museum) are:

1. "Life changes, nothing stays the same . . . the sole constant of being alive is change."
2. "People are drawn to the risk-taking, adventurous and experimental aspects of a project."
3. It is important to recognize and foster interrelationships, symbiosis and common ground.
4. There is "power possessed in the posing of questions, in the act of inquiring, in the spirit of interrogating."

In reference to the institutional level of creativity, Brooking emphasized that inertia directly affects change. She quoted David Scott, a Canadian management consultant whose paper on "Museums in the Year 2000" identified eight attributes of excellence for planning:

1. A clear understanding of the real purposes of the organization by all of the key people involved.
2. A common image of what the organization wishes to become in the long term.
3. An organizational structure which clearly defines responsibility for achieving the basic purposes of the institution.
4. Key operating policies which are congruent with the purposes and plan of the organization.
5. A realistic assessment of human, financial and physical resources necessary to achieve long-term goals, and a reasonable expectation of obtaining them.
6. Methods of budgeting or allocating these resources rationally in support of the basic purposes of the organization.
7. Procedures to review regularly purposes, plans and policies and to assess progress in implementation.
8. Physical planning procedures which are fully integrated and compatible with institutional planning processes. Brooking then added one

more attribute of her own, "The need to mesh the individual's professional goals with those of the institution."

Equally challenging, says Brooking, are "creative endeavors in the museum world from a national perspective." In answer to this need she proposes a national museum laborabory, "a Center for Advanced Research in Museum Studies, a Rand Corporation think-tank, that will provide opportunities to test what [Arnold] Toynbee calls the field of action. Currently there is no central arena in which an organization of scholars can devote themselves to analyzing, researching and evaluating the effectiveness of a wide range of issues that touch museums."

The function of the Center would be multifaceted. The Center and its scholars would apply their energies to accumulating statements of intent (in response to the everpresent question, What should be the goal of education in museums?), analyzing these responses and determining how well these goals are communicated to the public. According to Brooking, "Publication would also be a product of the Center. At present there are too many scattered papers and articles—many of them are in mimeographed form; a few are out of print; some are out of date, yet still revered; and many are of less than substantial quality with research methods of questionable validity or bibliographies of doubtful import. Much of the research of philosophical strength simply never reaches the museum profession it should serve." Another direction Brooking proposes for the Center is choosing research topics for select bodies of museums to undertake. It would then be the Center's task to publish and disseminate the results. In essence, Brooking's Center would isolate topics of importance to the profession, assemble scholars and act as a catalyst for thinking about the work of museums for today and the future.

We asked Brooking to explain, since the purpose of the Center would be to analyze, research and evaluate, how the image of the museum educator as a "doer" would fit into this academic Center. Her reply was that there is a need to be more holistic. "We cannot just be doers. Educators need to find out if what they are doing is working. The research base strengthens the profession as well as the individual. Educators need to think about what is being done. For example, longitudinal studies of the real effects of school programs could be made. Research and evaluation are part of the whole package. Museums too frequently continue to do for the sake of doing without adequate evaluation of the real impact of their endeavors because they have not clearly established their goals and objectives."

Concerning academics, we asked Brooking about her views on museum training programs, since we are earning Master of Arts in Teaching-Museum Education degrees. She said that the controversy about museum training programs versus academic degrees is symptomatic of the schizophrenia in the field. The issue is also hotly debated among prospective and current museum directors. "Directors are often required to have Ph.Ds in an academic discipline, yet they are put in managerial positions, where they often make terrible managers." Brooking added, "I wish I knew the answer. I suppose the answer is two degrees, an academic M.A. and a training M.A."

While on the issue of trained museum educators, we asked Brooking how she entered the field. Her reply:

> It was through invitation and before affirmative action. Shortly after I completed my masters degree in art history, I was asked by my predecessor whether I would be interested in the position of Curator of Museum Education. I had never considered museum work as an option; my thought was that I would teach art history. So I am a graduate of the O.J.T. school of education. I also invited my colleagues to teach me: the first three years I held the position, I used my month's vacation to visit museums throughout the nation inquiring about what they were doing and most important of all, why. It was highly instructive and also created a network of colleagues which has been immensely important to my development.

To help her in carrying out her role as innovator, risk-taker and change agent, Brooking attended the Museum Management Institute in Berkeley, California. She advised her student audience to "become marketing experts." She also urged museum educators to adopt and develop management techniques, calling for more museum administration workshops like the one at Berkeley for museum professionals. We asked her to list the important points she had learned during the management seminar. First was the awareness or perception of the differences in management styles and the necessity for recognizing one's own style. Second was the importance of knowing how to make a correct performance evaluation. (With anti-discrimination laws and other factors, performance evaluation has turned into a science.) Human Resources Management encourages a "more humane way of managing," based on the consultative rather than the coercive mode. Third was the realization that "Meetings don't have to be boring!" (There are strategies and tactics that may be employed to make staff meetings more exciting and interesting.)

Further insights into museum management were presented in the form of management parameters. Brooking defined these as follow: clear statement of purpose, identification of long-term goals and short-range objectives, the selection of activities and the establishment of task forces. Her plan of action for evaluating and changing the museum consists of informing the staff, interviewing the staff, evaluating the findings (it is wise at this point to call in a professional evaluator), analyzing and interpreting the findings with the task force, arriving at a consensus, making recommendations, writing the report and letting the director make all final decisions.

To formulate a policy for museum action, Brooking suggested interviewing the museum staff to determine their images of the museum, its programs, audience and exhibitions. In addition, she recommended polling the museum's members and associates, using the same questions. Visitors may be observed, surveyed and also interviewed over the telephone. A sampling from each group is sought, then studied, by the museum educator to obtain a balanced, holistic view.

To maximize the success of museum programs it may be necessary to draw upon the resources of the museum's community. Brooking noted that it may be of more importance to offer more special museum events for the general public. This would give the museum extra visibility which would, in turn, generate essential community support. Nonetheless, attendance figures alone should not determine programming choices; unfortunately, the number of visitors to a museum is too frequently used as a measure of a program's success, quality and validity for funding.

The emphasis on the need for published articles from the museum community was a recurrent theme in Brooking's presentation. Brooking advocated: "Writing forces one to define thoughts clearly and to discover relationships and conclusions not otherwise realized." She noted that one barrier to increasing the amount of scholarly museum publications may be the lack of interest by publishers. "These works would most likely be low volume items, and perhaps would require just such an institution as the Center for Advanced Research in Museum Studies for realization and distribution." As museum educators we cannot merely tell about our programs, Brooking insists; we need to explain why we do as we do. We need to raise museum education to a higher level on the intellectual totem pole. Publication, as Brooking urges, may be one means to that end.

This article appeared in Roundtable Reports, *V. 5, No. 3, 1980. These students have graduated and are at work across the country: Mary R. Allman, Community Memorial Museum of Sutter County, Yuba City, CA; Diane L. Dimkoff, Falls Church, VA; Gloria G. Gerace, J. Paul Getty Museum,* *Malibu, CA; Patricia A. McNeill, J.C. Geever Development Consultants, New York, NY; Kathleen M. Philbin, The Bennington Museum, Bennington, VT. Dolo Brooking is now Associate Director and Associate Professor of the Community Arts Management Program at Sangamon State University, in Springfield, IL.*

FIRST QUESTIONS

DO YOU READ ME?

Minda Borun

Museum professionals communicate with visitors through exhibits and programs. In order to know whether or not their message has been received and understood, they must complete the communication process by listening to the visitor's response.

Evaluation is the process of determining the extent to which a program has produced a desired impact on its users. The people who developed the program conduct or commission an evaluation study in order to get information about how to improve this program or the next one. Unlike research which attempts to uncover basic principles that apply in a range of diverse environments, the results of an evaluation study apply specifically to the institution in which it is done. In museums, we can evaluate exhibitions, films, tours, lectures and classes. Similar evaluation procedures can be applied to all of these offerings.

Discovering what visitors think, learn, and feel about our programs can help us make decisions about what to keep and what to change, what works, and what needs to be improved.

Three important questions are involved:

1. Who is the audience?
2. What impact do we want to have?
3. How will we know we have had this impact?

Before we can begin to clarify the goals of a new exhibit or program, we need to have an idea to whom we will be speaking. One way to answer this question is to survey the current museum audience. A questionnaire, given to a random sample of museum visitors, is used to collect information on age, educational and cultural background, income, place of residence, visiting group composition, etc. In addition, it is helpful to ask why people have come to the museum or to a particular exhibit and what they are expecting from their visit.

Once we know with whom we will communicate, we must decide just what we want to say and why we think it is important. What are the goals of the presentation? Are they simply to please and entertain or are we trying to teach something? Do we want to create a sense of awe, wonder or appreciation or spark an interest in a particular subject? Do we want to communicate general concepts or specific facts about art, science or historical development, or do we want to reinforce and extend the previous knowledge and experience of visitors? In addition to being a necessary part of the evaluation process, clarification of goals in the planning stages of a program and continued reference to explicit goals throughout development can help assure its success.

Once the audience and goals have been specified, we can begin to think about the third question: "How will we know we have had the desired impact?" What would we like visitors to do? This involves translating the goal statements which are very general into a set of specific, measurable, behavioral objectives. A behavioral objective states that you want certain kinds of visitors to do or say something with a particular level of frequency or competency.

By setting behavioral objectives, we are defining something that can be measured. The process of selecting or creating appropriate measuring instruments, using these instruments to collect data on actual visitor behavior, tabulating the data, analyzing the results, and making appropriate recommendations for change is the task of the evaluator.

The world of the museum and its visitors lends itself to study from a variety of points of view ranging from ethnographic description of visitor behavior to careful testing of what has been learned. Since museum presentations have multiple goals, we need an eclectic approach to evaluation.

The articles which follow present a variety of approaches to museum evaluation. While some of the procedures may be complex, the take-home message is simple—evaluation can help you to create programs which not only impress your peers, but really speak to your visitors.

THE MUSEUM AND THE VISITOR EXPERIENCE

Nelson Graburn, *Curator of North American Ethnology, Lowie Museum of Anthropology, Berkeley, California*

In recent years, museum personnel have become increasingly uneasy regarding their relationship to the general public. It is not that we are dissatisfied with the public that flocks to our institutions in ever-increasing numbers or with ourselves as we become more skilled and more successful in nearly every dimension of our professions. Our dissatisfaction stems rather from a "revolution of rising expectations" concerning the effects that our cultural productions have on the public. We have come increasingly to want to understand the lasting effects, not measured in attendance figures and popularity, but in terms of the heightened awareness—aesthetic, historical, scientific, humanistic—which is supposed to accompany our unique institutional role. In a word, education has become the preoccupation and business of many museum professionals.

Many recent publications and papers have pointed out the relative failure of museums to substantiate the kinds of educational successes that have become their goals. To fill this gap, some evaluators have designed research on the visitor experience. Several have compared test results from before and after the museum visit in order to measure the acquisition of various kinds of knowledge and understanding; some have even experimented with manipulating the exhibit experienced to find solutions to specific questions. However, no one has really examined the context of the museum itself within the panoply of American culture today, comparing it with other institutions and activities in order to more fully determine from where the visitor's expectations and reactions come. Since it is only by stepping back and looking at the larger picture that we may gain perspective, this essay attempts to make a start in this direction by examining the functions of the modern museum in the total socio-cultural context.

The examination of the meanings of museum experiences for the general public must take into account the many pronounced differences between museums and the variety of museums and comparable institutions within the public's background experience. Museum "publics" obviously differ on the bases of class, age, ethnicity, educational level, and degree of travel, as well as in respect to more subtle measures, such as taste, hobbies, interests, and significant friendships. This makes the task for the analyst and for the museum professional extremely complex and the problems difficult to solve for public institutions which, by their very definition, try to cater to a general audience.

Life is a continuum of experiences which gain meaning from the ever-changing series of contrasts to which each individual is exposed. These experiences may be cyclical—as with the daily cycle of rising and going to bed, work and recreation, meals and breaks—which in turn is imposed on a weekly, sometimes monthly, and, of course, yearly cycle, marked by the contrasts of seasons, work versus vacation, weeks and weekends, etc. Other sequences may be experienced as linear: childhood, adulthood, marriage, old age, and so on, which in turn are imposed on the even more linear progression of calendar years and historical processes. In making sense of the naturally differentiated passage of time, human societies have imposed *social markers* by which to remember and demarcate occasions and stages. The major *ritual* function of museum going and other such voluntary events is just this, to serve as a social marker by punctuating personal and family life in a memorable and pleasurable way.

Within this framework, we can see that museums are inextricably related to that phenonmenon known as "tourism." Both museums and tourism are relatively modern phenomena which were once exclusively the province of the rich and powerful and which developed, especially during the Victorian era, into institutions for the ordinary citizen. Both are "public" in that they are mass phenomena that take place away from the private home, and both involve the magic of a "trip," an out-of-the-ordinary experience. Both are now subject to the post-industrial reorientation stemming from the fact that "leisure is displacing work from the centre of modern social arrangements," (MacCannell 1976:3) and the corollary that "work should have other than economic rewards and leisure should be productive." (Ibid:7)

Modern life is breaking up the old distinction between the "leisure class" and the "working class," capturing its fragments and distributing them to everyone. (Ibid: 37) Thus everyone is supposed to both work and have leisure time, and the meaning of life is to be found less in one's occupation and more in one's leisure or "life style." Museums and tourist experiences are part of the modern search for authenticity which is increasingly sought in the non-mundane, the non-ordinary.

As social values and social institutions change, becoming more complicated, more impersonal, less "authentic," and more secular, each one of us is expected to take the approach of the social scientist in attempting to understand the nature of the external world which impinges on us and our families. Old explanations and world models have been thrown aside in favor of the new. Now each person has the twin tasks of understanding the new models of art, of society, and of nature while at the same time seeking reaffirmation of the fragments of the old worlds that he grew up with, clinging to values that once held meaning, and, ultimately, convincing himself that parts of the world he grew up with still make sense.

In this search for authenticity, museum visitors participate in what Claude Levi-Strauss (*Pensee Sauvage*, 1964) calls "magic" or "mythic" thought, which is diametrically opposed to "scientific" thought. Both scientific and mythic thought are ways of trying to make sense of the world, and both are present in our everyday thinking processes. The former is usually the result of education and discipline and the latter the result of living and experience. For example, in attempting to explain how we understand smells, the scientist tries to reduce the phenomenon to its basic principles while the opposite is true in mythic thought, where explanation never rids the smells of their contexts and relies on the *totality* of associations.

The cognitive, scientific mode, then, strips objects and events of their associations and contingencies, the very things that relate them to life. This is partly what underlies the complaints about "relevance," or rather "lack of relevance," aimed by various segments of the public at museums and other educational institutions. The public is more satisfied with explanations on its own terms, immediately relatable to the totality of its previous experience. In the end, mythical thought is for all of us more satisfactory than scientific thought, for the scientific approach offers satisfactory explanations for only the more impersonal parts of our lives and must be formally taught to us through the educational process.

Ordinary magical thought, Levi-Strauss tells us, can be likened to what the French call *bricolage* and what we Americans call the "Rube Goldberg" approach to construction. That is, the *bricoleur* makes new things out of parts of the old, using the associated properties and design to build these parts into the new, just as the collage maker does not strip all identity from the "borrowed" parts from which his or her work is composed. Thus, says Levi-Strauss, ordinary thought builds new structures out of the *debris of past events* from our experience. We do not construct meaning from basic axioms in the manner of the scientist but out of selected parts and associations from our total life histories.

Art, claims Levi-Strauss, comes somewhere between *bricolage* and science. The artist uses pure elements—of color, sound, design—to create events that are not "pure" but that derive their meaning from the associations that they evoke in their audience. If an artist is too "pure" in following rules of design or exploiting the structure of his or her materials, the art work turns out "academic" and so removed from reality for most of us as to be boring. If, on the other hand, the artist is too contextual (as in the case of most political art and home photography), the work will fail to reveal the underlying truths of artistic structure and shared human concerns.

Why have I focused on the relation of artistic production to processes of thought? Because, I claim, *the museum must be a work of art*; and this is regardless of whether the speciality of the institution is ethnology, natural history, science, art, or history. The producers of the "cultural productions" known as museums must tread the thin line between being too profound by concentrating on scientific "first" principles and being so contextual that visitors think the exhibitions superficial. And this thin line is the art in which all museum personnel are implicitly or explicitly involved.

The problem for contemporary museums is that their visitor publics are looking for different kinds of knowledge and reaffirmation, depending on past experience, including education. The meaningfulness and satisfaction of the museum experience is the product of a fusion of the debris of previous events and the new event of the museum experience itself.

The debris of events that the visitor brings to a museum, expecting to make sense of the exhibits in his own personal way, is related to the other institutions in his life experience in two respects. First, other past institutional experiences—including other *museum* experiences—provide the setting for expectations about museums. Second, the experience of other institutions (including family and home) will have created certain *experiential needs* in that person's life that a museum may be expected to fulfill.

Let us now examine three types of such needs, which I shall isolate for the sake of analysis but which in reality may be overlapping or intertwined. These needs are for (1) reverential, (2) associational, and (3) educational experience. (Annis 1974)

- *Reverential.* This designates the visitor's need for a personal experience with something higher, more sacred, and out-of-the-ordinary than home and work are able to supply. Although museums are public spaces, the experience within them can be a solitary one of contemplation, meditation, and rest from the cares of the world. The museum may provide a place of peace and fantasy, where one can be alone with one's thoughts and make of the objects and exhibits what one will. . . .

- *Associational.* The museum may also provide an excuse or focus for a social occasion. In this function, the museum is analogous to the tourist sight, the spectator sport, the beach, the theme park, and shopping for fun. The significance of the museum visit lies primarily in the fact that it is a *shared* experience. Families who go to museums as part of their sightseeing are able to relate to each other in their roles as couples, parents, and siblings in a more direct and relaxed way than within the confines of the ordinary workaday world. . . .

- *Educational.* It is to this function of the museum above all else that the visitor appeals in his effort to make sense of the world. In fact, the museum has become in *itself* a model of many of the processes of modern life. Many people look upon the world as a "museum," a model of itself, something to be studied and understood rather than to be participated in unselfconsciously. The museum is a *cultural production* from which many people expect to learn something about the world. . . .

CONCLUSION

To return now to our original question: Why is it that the museums, at the peak of the popularity, are so troubled with their performance and so concerned about evaluating the visitor experience? I think that the problem stems from the very fact that the museum is, *par excellence*, the institution most looked to for the kind of education that modern man wants. Museums are suffering from their own success, which is putting them to the challenge. Museum professionals have valiantly met this challenge in their efforts to broaden their scope and expand their services. But success breeds more success and the challenge grows. More segments of the public are drawn to the museum, multiplying the problems with their varied and overlapping needs. As museums try to be all things to all people, each person expects them to be something for him or her in particular.

As the crowds increase and heretofore inexperienced classes of visitors arrive, cognitive dissonance begins to cause some to be frustrated and others to be bored. "Museumitis" is becoming a common disease; after half an hour or an hour of what is supposed to be a pleasant experience, the visitor gets turned off, develops headaches, and feels tired. This is due at least in part to the fact that a museum is a strange place in that the subject matter slides past the walking visitor like a kaleidoscope, demanding attention and a change of focus at a pace not experienced elsewhere. In a museum, as opposed to in a church or school, the tempo of the experience is controlled not by the person orchestrating the event but by the visitor himself; and thus a heavy burden of decision-making falls upon the visitor, who must decide to move on or to stay, to avoid the crowd or be pushed on at a difficult pace, to read or not to read the labels, to glance at or study the exhibit.

Contemporary evaluation research measures both the quantity (attendance) and quality (satisfaction) of the visitor experience. So far its techniques are in their infancy and the most advanced work (Borun 1975; Linn 1976; Screven 1976) is limited to the cognitive, linear, cumulative aspects of understanding facts and ideas. Because the true educational value of the museum in its pivotal role as the interpreter and interlocutor of the modern world is harder to measure, let me suggest, in a chauvinistic plug for the social sciences, that sociological and anthropological studies of the role and impact of museums in modern life should be included in new and more comprehensive cooperative attempts at evaluation.

Museums should be looked at not only by themselves but also as part of the full panorama of modern communication systems and institutional experiences. Psychological studies of the museum experience should also be broadened to focus less on the individual *qua* individual and more on the matrix, the *interactional context* of the learning process. In a profession so eager to evaluate—and to justify—our efforts, let us use *all* of the tools available so as to better comprehend our place in and contributions to the modern world.

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THE USE OF TIME AS A MEASURE OF VISITOR BEHAVIOR AND EXHIBIT EFFECTIVENESS

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Parking meters, appointments, bus schedules, and lunch hours; hunger, mental fatigue, and physical exhaustion—the duration of a museum visit is related to a variety of factors that we all realize, but often seem to forget. The time a visitor spends is more than seconds, minutes, and hours; it is a measure of constraints, needs, and values. The allocation of this valuable commodity is a useful barometer to the visitor's underlying interests, motivations, satisfactions, and dislikes. Time is, perhaps not coincidentally, the single measure most frequently used for evaluating exhibit(s) quality/effectiveness and assessing visitor behavior—the time spent in an exhibit, the time spent in an exhibition hall, the time spent in a museum. Time, as a research variable, is easy to measure, essentially objective, and theoretically non-trivial. In this paper, I will: 1) review the previous uses of time as a museum evaluation parameter and suggest some new perspectives on using time as a measure in evaluation studies; and 2) look at time metaphorically as a device for understanding museum visitor behavior.

The set of literature concerned with studies of visitor behavior and exhibit effectiveness and the set utilizing time as a primary measure are almost totally overlapping. In one of the earliest systematic studies, Robinson (1928) coined the term "holding power" to refer to the average time visitors devoted to exhibits in an art museum. This term and technique are still used today. Melton (1933, 1936, 1972) and Melton, Feldman, and Mason (1936) also did pioneering work with time as a dependent measure. Using time lapse photography, Nielsen (1946) discovered that visitors to the Museum of Science and Industry in Chicago tended not to view exhibits in proper sequence and stayed a maximum of thirty seconds in front of any given exhibit. Bechtel (1967) used time to assess the exhibit preference of visitors. Not surprisingly, he found that visitors spent more time with exhibits they liked. Falk (in review) demonstrated that time, along with observable nonverbal behaviors, could be used to accurately predict learning in a museum. Some other investigators using time as a dependent measure were Shettel (1973), Screven (1974), Lakota (1975), Brown (1979), Alt (1979), and Riddle (1980).

Time has also played a role in the assessment of visitor behavior in "naturalistic" visitor research (Wolf and Tymitz, 1979; Gottfried, 1979; Rosenfeld, 1980; Diamond, 1980) and survey research (Elliot and

Loomis, 1973; Borun, 1977). Currently, there are abundant data on how the average museum visitor spends his time. These data were perhaps best summarized by Laetsch (in press), who stated that the average visitor spends no more than two hours in a museum, nearly three-quarters of this time is spent in walking around or visiting the bathrooms, gift shop, or cafeteria. During the roughly thirty minutes the visitor actually spends attending to exhibits, he will, at most, spend thirty to forty seconds looking at any particular exhibit. These "facts" are now generally accepted by the museum world and presumably are being heeded in the design and presentation of new exhibitions. But are these "facts" accurate? A closer analysis suggests that although the data collected may be correct, poor choice of statistics used in their analysis often leads to erroneous conclusions. Specifically, the crux of the problem lies in using an arithmetic mean as the best "summarizer" of the data.

Figures 1, 2, and 3 represent three fairly typical sets of data. Figure 1 (adapted from Diamond, 1980) shows the duration of exhibit interaction as a function of the percent of exhibits visited at two science museums. Figure 2 (Falk, unpublished data) represents the time visitors spent manipulating one specific exhibit in the Hall of Human Biology, British Museum (Natural History). Figure 3 (Falk, in review) represents a different population of visitors interacting with a different exhibit located in the same hall. The arithmetic mean of the data in Figure 1 falls in the one minute duration class (1.5 min.); the mean does not accurately reflect the behavior of the majority of the public sampled. Most visitors spent very little time (less than a minute), while other visitors spent considerably longer periods at exhibits. The populations represented in Figures 2 and 3 provide an even more extreme example of the potential problems of using the mean as the primary statistic for analysis. As in Figure 1, the distributions are skewed and bimodal. Either people spent less than thirty seconds, or they tended to spend much more time (in excess of 120-180 seconds). The mean time actually describes very few people. In both Figures 2 and 3, only 5% of the visitors actually spent somewhere close to the mean amount of time at the exhibit, roughly 60% spent considerably less than the mean amount of time, and about 33% considerably more time. The "holding power" distributions for all three populations follow the same basic form—bimodal.

What all these findings suggest is the rather common sense proposition originally documented by Bechtel—either people enjoy the exhibit (spend time) or not (do not spend time). An average is really not useful information, since virtually no one spends the *average* amount of time at an exhibit. How then, does one empirically deal with visitor time data, given that as previously stated, time is theoretically an important and

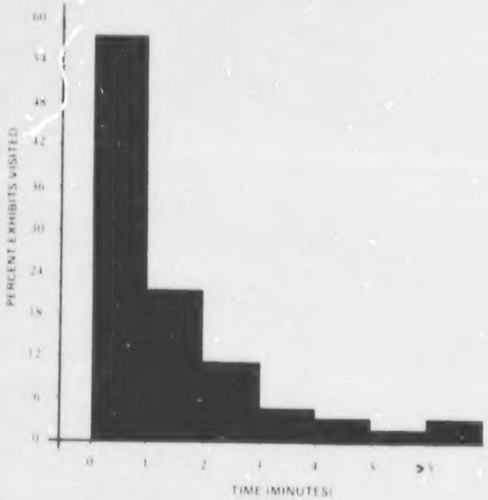

Figure 1.
The mean frequencies of different durations of exhibit interactions at the Exploratorium and Lawrence Hall of Science as a function of the percentage of total exhibits visited by an individual.

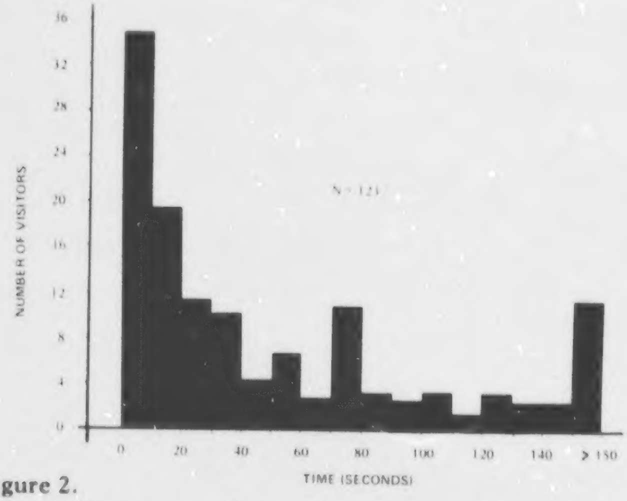

Figure 2.
The time of interaction with an exhibit on hormones of a random sample of general public visitors to the Hall of Human Biology, British Museum (Natural History).

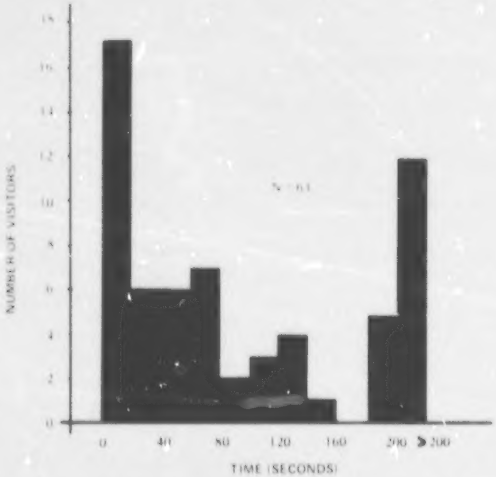

Figure 3.
The time of interaction with an exhibit (on the interplay of the hormonal and nervous systems) of 12-13 year old children visiting the Hall of Human Biology, British Museum (Natural History).

useful measure of visitor behavior and learning?

The first step in handling time data should be to plot the frequency distribution (Figs. 1-3). If the distribution is generally normal (bell-shaped), then a mean is an appropriate summarizing statistic, and standard statistical analyses, which presuppose a normal distribution, can be used. If, as is likely, the distribution is essentially bimodal, the mean is an inappropriate statistic and a first step would be to calculate the two modes. A bimodal distribution, however, usually implies that more than a single population is represented by the data and some procedure is required to separate these populations before further analysis can be done. The standard procedure is to divide the data at the "antimode," or least frequently observed point; the resulting two groups can then be analyzed separately via a "split-plot" design (Kirk, 1968). Occasionally, though, one may wish to use time as an independent variable to help illuminate other considerations, such as learning, where the time spent by the individuals in the middle of the distribution is of most importance and interest. Under these circumstances, a transformation of the data may aid analysis. One procedure is a logarithmic transformation that compensates for the typical skewness of time data, and tends to normalize the distribution by weighting longer time intervals more heavily. This procedure will not help strongly bimodal data. In such cases, a sigmoid transformation will be an appropriate procedure (Falk, in review). The main advantage of a sigmoid transformation is that it minimizes the extremes and maximizes the importance of the middle part of the distribution, generally deemphasizing the impact on the analysis of the visitors who spend no time, and the ones who spend hours. As a consequence, the response times of the visitors who spend somewhere between "zero" and "forever" at an exhibit are highlighted.

THE MUSEUM/DEPARTMENT STORE, VISITOR/SHOPPER METAPHOR

. . . From the initially stated premise, I would argue that time is a primary consideration in planning and actualizing a museum visit—but for lack of time, visitors would stop at more exhibits, visit more galleries, and even come to the museum more frequently. In many other life situations, money, rather than time, is the limiting variable. Accordingly, I would propose a simple metaphor that is useful in understanding museum visitor behavior. A museum is like a department store and museum visitors are like shoppers—the emphasis is on primary forces and does not deny the existence of other factors. In a retail store, a customer's monetary resources, in large measure, determine behavior; in a museum, time plays the comparable primary role.

The "serious shoppers" know exactly what they wish to buy. If Ms. Jones needs a new umbrella, she goes straight to the umbrella department. After examining the various umbrellas available, she selects the one she wants, pays for it, and departs. She does not stop at the sale shoes or at raincoats, even though she may need a new one—all she is interested in is a new umbrella. In much the same way, some museum visitors come with a very clear, predetermined notion of what they wish to see. It may be one particular piece of sculpture, or the new exhibit on Pleistocene fossils; perhaps they have a class assignment or simply a longstanding interest. In any event, that is all they want to see and that is likely all they will see. They will spend a great deal of time in front of the single exhibit that motivated their trip.

Then there are the "window shoppers"—the endless streams who never seem to buy anything. They touch the merchandise, stroll the aisles, and read the price tags. They rarely come alone; window shopping is a social activity, a pleasant way to pass time. Although they may not enter the store with the intention of spending money, if something nice strikes their fancy, they buy. "Impulse buying" is the merchant's delight, and provides the motivation for investing in attractive displays and bargain counters. By analogy, "window shoppers" are the people who have come "to do" the museum. In this category, for example, is the family who wakes up on Sunday and decides to go to the museum. They do not know what is really in the museum, just that it would be a nice way to spend their time. Also in this category are most tourists and lunch hour visitors. Good displays and signage are essential with this audience—how will they know otherwise where to go and what to see? Typically, these visitors do not spend inordinate lengths of time in any one area. They try to see as much of the museum as they possibly can in the shortest amount of time. Unlike retailers, though, many museum workers cast aspersions on "window shoppers." However, "window shoppers" can turn into "buyers." If these visitors discover one or more exhibits sufficiently interesting, they will spend some of their time looking at exhibits in more depth than they had originally planned, or perhaps they will make a mental note to return to the museum again when they have more time. . . .

No matter how much a shopper may like to buy everything in the store, he probably does not possess the resources to do so. He will limit his purchases to some subset of the items available. Quite analogously, the museum visitor may wish to see in depth everything in the museum, but limited time (or physiological constraints measurable in time) prevents this. In most museums, a visitor must restrict his time to some subset of the museum. Frequently, this subset does not neatly fit the museum staff's ideal for a museum visit. Can we ask some useful questions using the shopper/visitor metaphor?

How many museums have made serious efforts to provide proper orientation for visitors? How many museums arrange their halls so that the most important exhibits (in terms of ideas to sell) are nearest the entrance? Would most museums even know which ideas to put on "sale"? By thinking about exhibits in these terms, perhaps museums could be more effective.

Retail stores typically have the same commodity in varying qualities and prices in order to maximize sales. Do most museums offer the same information at varying levels of sophistication or do they mostly aim for some middle ground?

We should not overlook the social aspect of "window shopping" (Laetsch, 1982). What can museums do to facilitate this aspect of the museum visit? Perhaps there is something to be learned from the success of shopping malls?

CONCLUSION

Whether it is used quantitatively or metaphorically, time is a valuable tool for understanding visitor motivation and behavior. It is easy to measure and manipulate; however, the use of overly simplistic statistics which might obscure the true nature of the data should be avoided. We must also remember that information on the time a visitor spends, by itself, is of little or no importance without an understanding of the factors that contributed to that behavior.

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EVALUATING DOCENTS: MENTIONING THE UNMENTIONABLE

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The traditional concept of the museum has been one in which a collection of objects was gathered together, the public was allowed to come, to look, and to leave. If a visitor did not emerge as a more enlightened person, it was his fault. More recently, museums have assumed a responsibility to the public. The visitor is now invited to come, encouraged to understand, and helped to enjoy the objects.

A guide, often a volunteer, is trained to facilitate this experience. This guide, or "docent," becomes the link between the museum's responsibility to educate and the visitor's desire to learn. Once the museum has accepted its responsibility, the question arises: How effective is the link? Can we evaluate its effectiveness?

Some docents resent the question in the first place. They raise issues like: Can one human being evaluate another? Are we afraid of hurting someone's feelings? If we evaluate docents, won't they quit? But evaluation does not need to be a threatening process for docents; they can perceive evaluation as an opportunity to learn.

Why is evaluation of increasing interest in both museums and schools? One reason is that accountability is becoming more expected in both institutions. Grants for research and programming in public or private institutions usually include some form of evaluation. Seeking and receiving "feedback" is widely accepted as an educational practice. Techniques using interaction analysis in evaluating teaching have been developed and successfully employed. With the need and the resources for evaluation present, more and more museums are concerning themselves with docent evaluation.

Nearly all human behavior is subject to continuous informal evaluation. In the museum, value judgments are made about the quality of docents in numerous ways: in the selection process, during preservice training, in choosing certain docents for special tours, and in designating others to act as representatives of the museum in outside activities. The question "Should docents be evaluated?" might be more usefully phrased, "Would more formal procedures of evaluating docents provide better information about their effectiveness than informal judgments?"

Preservice evaluation can be built into docent training so that it is taken for granted. Inservice evaluation for docents who have been "on the floor" for some years is quite another matter. The former is fairly common, but inservice docent evaluation is rare to an extent that constitutes a paradox. An active museum serving hundreds of visitors each day with docent-guided tours provides an ideal laboratory for powerful program evaluation as well as for regularly scheduled, periodic evaluation of docent performance.

One can imagine, for example, evaluation projects directed at the museum program itself in which docents are trained to explore different objectives by selecting a particular sequence of exhibits, by following a carefully designed tour strategy, and by tailoring a balance of lecture, questions, and responses to visitor ideas to discover how each tour strategy might succeed. The product of these evaluation projects would be a growing fund of knowledge about how different kinds of tours reach different objectives, and, in turn, meet the needs of different visitor groups. As an additional and welcome side effect, the evaluation of docent performance might more readily be seen by docents as a program to improve museum services, which is exactly what it is.

It is obvious that guides and docents should know their subject matter, be able to describe the objects and exhibits accurately, and understand the organization of a gallery—that is, the major concepts that permit broader insights and understandings to be learned. For this reason tests are administered to assess the docent's knowledge at the end of preservice training. It is equally obvious that the docent must be able to use that knowledge in the conduct of a tour, and thus tours are rated by a curator or educator, or the interaction between a docent and members of the tour group may be analyzed. Such an evaluation of knowledge and communication skills is even more productive than the tests following training.

But evaluation of both knowledge and of tour performance is directed toward the docent, who is expected to meet a certain standard, just as teachers must satisfactorily complete college courses and student teaching before they can be certified, and as pilots must earn their wings. Evaluation of docents can and should have a different focus. Instead of directing attention primarily at the individual docent, the total program should be evaluated. To accomplish this, evaluation procedures should become an integral part of docent training as early as possible and be continued as a method of monitoring and improving museum programs.

In his article "Evaluation in the Arts," (*Phi Delta Kappan*, Summer 1978) Elliot W. Eisner, Professor of Art Education at Stanford University, decries the "accountability movement" as well as the trend toward making curriculum planning and teaching too technical. While he appreciates the circumstances brought about by the "Sputnik" decade of the fifties and by the efforts to secure funding to underwrite increased pupil enrollment, he feels that a national paranoia about education was appeased through an increased dependence on test scores, many of which were inappropriate, in the first place, and, in the end, produced misleading results. While he believes that we desperately need to evaluate what we are doing and what we are achieving as teachers—in Eisner's context, as teachers of art—he feels that we need new methods of describing the achievements and weaknesses of the programs we operate so they can be strengthened. Eisner says "a teacher who wants to improve needs to have respected and trusted people observing his or her teaching." Rather than using student test scores to evaluate a teacher, he would prefer "articulate narrative" as a means of evaluation. By this he means that a teacher should be evaluated by the thoughtful, qualitative description of a connoisseur who can eloquently describe fine teaching.

How can we synthesize evaluation and docent learning? If we apply Eisner's ideas to docent evaluation, we might imagine that a pair of docents who trust each other could give valuable feedback to one another after a tour. The discussion would be most fruitful if an agreed-upon set of criteria was established first, like: "What makes a good tour?" Thus the narrative would avoid becoming subjective and personal, and be prevented from deteriorating into either mutual pats on the back or unjust criticism, neither of which helps a person to change his or her behavior in any positive way.

The goal of articulate narrative between trusting and observant docents requires careful groundwork. The docent trainer must first become a model of self-evaluation whom the docents can emulate. Strategies should be introduced to reduce threat and embarrassment during evaluation, and docents should be encouraged to join in the setting of criteria for evaluating all stages of their learning.

During the preservice training period, short quizzes and study questions help to emphasize objectives and provide practice in answering questions that might occur on a tour. A final test in one's field of specialized knowledge is much less threatening when the test items or similar items have already been answered in regularly scheduled quizzes or assignments. The emphasis can shift from evaluating the docent trainee to evaluating the preservice course itself and those who are the instructors. Two steps help. First, trainees can correct their own quizzes at the end of each study unit, and the test results can be displayed on a blackboard to show the progress of the entire group without identifying the standing of individuals. Second, at the end of each unit, the docent trainer can solicit ratings of the different learning activities with suggestions for improvement. After the results are discussed it may be possible to implement the best suggestions in the next unit of study.

When this happens the trainer publicly demonstrates that evaluation is not only a part of learning for both trainer and trainee, but also a method of modifying the activity (training) itself. The argument here is that docent tours are evaluated to make changes, changes that lead to improvement. By asking the docents to participate in modification of their own work, the trainer is providing a model that the docents can later use for themselves.

Reducing threat and embarrassment in evaluation will require new perceptions about one's own behavior. Most of us are not accustomed to self-analysis; at best we may be introspective or we may "replay" scenes in our imagination, with a tendency to improve on the original scenario so that we become more poised, witty, forceful, or clever. Such fantasies are not likely to be objective or lead to constructive change. Here a tape recording of one's own tour is the best single way to start. It takes a few recordings to get used to hearing one's own voice, but soon natural curiosity about changing one's behavior in order to hear improvement will begin to effect a pattern of self-analysis. Unfortunate speech habits can be identified; skill in asking questions can be analyzed: "What kind of response did I get when I asked the question in that way?" In many cases, a docent can learn almost enough from the tape recordings to recognize and practice most of the needed changes.

A second step would be to share the recording with a docent friend, looking together for signs of a good tour, as well as things that might need change. The essential thing is to establish the initial curiosity about one's behavior, develop optimistic expectations about its analysis, and encourage a sense of humor about the learning process. During the playback docents can list criteria with which to judge a tour, and thereby clarify their own goals. This mutual sharing and learning would be far less threatening than a curator's judgment once a year on an arbitrarily selected tour.

The best thing about a tape recording of a tour is that it can be played back under less hectic conditions, stopping the action, thinking about one section at a time, speculating about what will happen next, and identifying patterns. The same technique is used by golf instructors who make video recordings of a student's swing in order to analyze, with the student, his stance, addressing of the ball, back-swing, impact, and follow-through. To establish this basic approach to evaluation at the earliest point in training, the docent trainer can record and play back segments of the training session, thereby becoming a model not only of self-evaluation, but of competency in using this tool.

What should we look for when evaluating a tour, either recorded or live? Tours divide into parts: orientation, visits to the exhibit areas, discussion of objects, mid-tour summaries, questions posed to stimulate future visits and the like. In between these are the transitions from place to place in the gallery and from subject to subject. The psychological atmosphere generated by the docent forms a background for the entire tour, and it shows up at various points in the tape recording. Therefore the docent may wish to experiment with different orientation activities to discover the potency of "first impressions" and their consequences.

Because learning for the museum visitor has a logical sequence, the docent can experiment, too, with the presentation of certain concepts designed to encourage more advanced learning and greater response at later stages in the tour, and reactions will be observable on the recording. Arranging a series of simple questions about the characteristics of an object will elicit responses that show whether the audience gained the required knowledge for answering more difficult questions later on. As the docent learns how to be more effective and create a more productive psychological atmosphere, he or she will also be conducting an optimum self-evaluation. This, indeed, is how evaluation blends with learning.

Museums that accept their responsibility to educate the public must also undertake the responsibility to provide optimal circumstances for the performance of educational presentations. The docent should not be put in the position of feeling vulnerable to the judgment of the staff. But only within a museum-wide evaluation program will a true spirit of inquiry into one's own behavior be made acceptable and be seen by the docent as a positive, rewarding experience.

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EVALUATING DOCENTS: . . . AND MEASURING THE IMMEASURABLE

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Evaluation. Let's come to terms with it, both in the sense of defining what we do when we evaluate, and in understanding its use as a tool for growth and change. The word "evaluation" is apt to drop like a stone among us, sending out visible ripples of anxiety. It suggests an alien process, interfering with our enjoyment of our work, and threatening to strip us bare before unfriendly eyes.

But the process of evaluation is familiar to us. When we choose one road to our destination over another, basing our choice on the condition of the road, the speed with which we want to travel, or the scenery en route, we are engaged in informal evaluation. We use memory, information gained from other travelers and the demands of the moment in order to select the route that promises the best results.

Were we to impose some kind of system on this choice: using maps, selective interviews with all kinds of travelers, information from experts like traffic patrolmen and the automobile association, stating our goal for traveling and keeping some kind of record that reflects the facts that relate to our choice, we would be engaging in formal evaluation. Either way, we would be using the information we have gathered in order to know which way to go.

This is precisely what evaluation is: a tool for deciding where to go, based on the knowledge of where you, and others, have been. And this definition has a corollary: if you don't plan on going anywhere, you don't need to know where you've been.

To evaluate, then, is to have a goal in mind, and to structure the evaluation so that it provides all the information you will need in order to proceed. Since we are talking about evaluating volunteer efforts, let's look at evaluation in that context. Let's say that we want to find out if the museum lessons given by volunteers are as good as they could be. We must first ask: To what purpose will we put the information? Are we prepared to make changes if we find that the lessons are not as good as they could be?

Suppose that the only change we are willing to make is to dismiss all volunteers who are not giving good lessons. We would then have to recruit and train replacements. How would we know that the new volunteers would be any better than those whom they replaced? With such a limited ability to change, evaluation would be useless. We would have let ourselves in for an endless cycle of recruitment, training and dismissal, and our further efforts would be based on chance rather than on knowing where we have been.

So we must break our evaluation down into areas of information that relate to factors that we can change. For example: What constitutes a good lesson? Is it a volunteer who delivers the "right" information regardless of how the audience responds? Or is it a volunteer who delivers information to the right audience: an audience that is responsive, prepared, and able to understand the lesson? We may need to evaluate the role of the teacher or group leader, the museum scheduler, even the role of the museum in electing to reach this audience. And we will have to be prepared to effect changes in these roles, if our evaluation reveals the need for change.

If we determine that the teacher is committed to the museum experience, that the volunteer has been given information about who the visitors are and what they want to lern, and that the museum is correct in determining that these visitors can learn something useful from the collections, then we can focus on the volunteer's performance. Is the volunteer familiar with how this audience learns, and prepared for how they behave in a group? Is the volunteer thoroughly familiar with the collections, and the concepts that the museum wants to impart? Is the volunteer able to use the objects that are most suitable for the lesson: are they *there* in the gallery where they are expected to be, and is there room for the group to gather around them? Did other visitors, or museum staff, interfere with the lesson?

Now, as you can see, we need to evaluate the whole relationship between the volunteer and the museum. We need to know if recruitment, training, scheduling and museum policies permit a good lesson. We will also want to know whether the volunteer is happy in the role defined by the museum: are there opportunities for growth in skills and knowledge, the kinds of comradeship and associations that were expected, and is the volunteer listened to when she has something important to communicate?

So, in evaluating volunteer efforts, we find that it is desirable to evaluate volunteer needs, staff efforts and staff needs, and the efforts and needs of the audiences that come to the museum. And, having decided to collect all the information that bears upon volunteer performance, are we prepared to make whatever changes are necessary? For if we examine what we do without being able to change, we open the door to frustration, and if we do not examine what we do, we are once again operating on mere chance.

If we are willing to change where change is indicated, and therefore undertake to evaluate all the aspects of the good lesson, we will be engaging in what I call "no fault" evaluation. It is an evaluation in which everyone participates, both as evaluator and as evaluatee. It is an evaluation in which no single effort is seen as the focus, rather, all efforts are assessed before deciding what to do next.

It is also not a kind of evaluation that can take place on one given day. It needs to be built in to the entire relationship between museum, volunteer, and audience. It can begin at any point, but will need to work backwards as well as forwards, in other words, to gather information about the past as well as to assess the present, and to plan for the future. By agreeing to assess the whole relationship, the participants are also agreeing on a common goal and a shared responsibility: to make the museum lesson better.

We can now divide evaluation into two further categories that are defined by their timing: *formative* or *process* evaluation, and *summative* evaluation. In summative evaluation we select a time which allows us to summarize the whole experience. In the case of the museum lesson, this might be a time in which all volunteers are considered to be trained, and have had a reasonable amount of experience in giving lessons. At this time we would set to work with some evaluative tool: it might be questionnaires prepared for each group of participants; it might be a series of interviews; it might be one or more observers equipped with checklists; or it might be a combination of these. The task would be to gather data on all the ingredients that are relevant to giving a good lesson. The characteristics of summative evaluation are that it takes a relatively short time to perform, but that it allows all the ingredients to proceed unexamined until the time of the evaluation. If we accept the maxim that it is easier to get things right in the first place then to correct mistakes later on, then perhaps summative evaluation is not the most productive way to go about things.

Formative or process evaluation asks us to build an evaluation into each step of the experience. We set a goal for each step that is consistent with the overall goal, we assess what has happened during that step, and we allow for changes before proceeding to the next. Thus we ask "What is the goal for recruitment?" as we begin. If the goal is to find people who share the museum's purpose in giving lessons, who can and want to learn what the museum staff is going to teach, and who willingly undertake the responsibilities the museum asks of them, we will need to design our publicity, our interviews with candidates and our definition of the responsibilities so that we attract these people and clearly inform them about what they will be doing. When recruitment is over, we ask our new volunteers to tell us what they understand of the museum's purpose and their responsibilities for carrying it out. They will tell us whether we have achieved our goals for recruitment. We then provide the opportunity for clarification and make decisions about whether to continue our relationship. Those who continue will be one step closer to the final goal.

Training proceeds in the same way. The goals for training are given; these might be: learning *x* number of techniques for teaching, learning the characteristics of certain audiences, learning safety procedures both for the collections and for the visitors. After each session or each unit of study the trainer and the volunteers must assess whether they have all the information they need and whether all the information is useful. Time for clarification and practice follow, and, when everyone feels that the subject is mastered, they are ready to move on. I should point out that formative evaluation does not dictate a rigid structure of weekly or monthly "evaluation days," it merely asks that each step toward the goal be examined for its effectiveness before taking the next, so that we are all as sure as we can be that we are headed in the same direction.

We can now define how we will evaluate, and our definitions will help us to choose the right kind of evaluation for our purposes:

Evaluation by measuring against the "norm" or the expected. We can determine whether we are giving a good lesson by having it demonstrated for us. We then break this lesson down into components: factual information, strategies for involving the audience, and structure, the introduction to the lesson, the series of objects and concepts that carry the lesson forward,and the summary that reviews what we have covered in the lesson. Then we undergo training designed to give each of us the knowledge and skills that went into the demonstration, practice our own lesson and demonstrate it for the evaluators. Implicit in this kind of evaluation is the opportunity not only to retrain in areas where we find shortcomings, but also to revise the training that allowed those shortcomings to occur. In measuring against the norm, we accept the museum's right to define the norm, and our responsibility to measure up to it.

Contractual evaluation. In this kind of evaluation, the evaluator and the evaluatee jointly agree on the terms of the evaluation, both what is to be evaluated and how it will be done. Suppose the volunteer says, "I believe that I give a good lesson. It is not like anyone else's lesson, but I believe that I involve the audience, impart worthwhile information and generally further the museum's purpose. I don't wish to measure my performance against another, but want to know if what I am doing is as good as it can be on its own terms." If the museum staff agrees that a different lesson can be a good lesson, then staff and volunteer will work together to define the components to be evaluated, and to determine how they will know if each component succeeds. Once again, it is implicit that opportunities for further training and practice accompany this evaluation.

Evaluation for the purpose of change. While both measurement against the norm and contractual evaluation imply change, they also tend to imply that we want to become better at what we are already doing. Therefore, the kind of change that we are evaluating toward is an enrichment of the present practices. In other words, what we do is good, and we want to get better. But let us assume that what we are good, and likely to become better, at, is not the only option.

Let us assume that our goal remains to give a good museum lesson, and that our staffs and volunteers have assessed what they do, and have been assessed by their audiences, and find that the lesson is as good as it can be. What then?

If we have undertaken evaluation of our work together, learned to be inquiring, observant and adaptive in our quest for improvement, learned to help each other and to find resources that can help us all, and—most of all—experienced the satisfaction of growth and change, will we ultimately reach an upper limit where no further growth or change is required? In short, will we produce the ultimate museum lesson, and rest on our laurels?

It stands to reason that we will not. The process of inquiry, growth and change, once begun, will be hard to put aside. When we reach the upper limit of our goal, when we are all giving good museum lessons, we will want to set ourselves a new task. We might ask, "Does this lesson teach other things beyond those which we designed it to teach? Are the goals of the lesson, of the museum or of the visitor narrower than they might be? Do we have skills and resources that we have not used in our lessons?" I think that, to understand evaluation for the sake of change, we might recast the topic, and imagine evaluating not volunteer efforts, but volunteer potential—and, of course, staff potential and the museum's potential as well. We might imagine some new directions, try them out, and evaluate them, not to assess whether we have gotten good, but whether what we know about getting good has new applications.

We might begin by learning more about what happens during our lessons. Using volunteers, who ultimately know more about good lessons than anyone else, we might make systematic observations of the audience during the lesson. The volunteer who gives the lesson needs to attend to the responses that move the lesson along. But the volunteer who observes the lesson might try to find out what else is happening. What else draws the audience's attention. What other responses, not fruitful in terms of the lesson, but perhaps fruitful to the goals of the learner, are being made?

We might, in some cases, follow up our observations by recontacting the group. What do they remember of the lesson, and what else do they remember about the museum that was not included in the lesson? Having had the lesson, what else did they want to know, and what do they want to know next? As you can see, we begin to build an evaluation of the museum's educational potential, and of our own potential for changing the education process in the museum. Happily, there is no limit to our growth when we evaluate for change.

Up to this point I've talked about evaluation as a means of furthering the museum's goals. For one minute, however, let's consider how evaluation of volunteer efforts can further our more personal goals. Although volunteerism is by nature a selfless endeavor, in which the volunteer elects to work for a cause beyond personal interest, it is still good to know that you have grown, mastered skills, acquired knowledge, and that this has been noted, and appreciated. Evaluation is a tool by which all this can be accomplished.

Careful evaluation can easily be translated into individual records of training, attendance, proficiency in skills and demonstration of acquired knowledge, and of additional information which characterizes your involvement with the museum, like interest in leadership opportunities, work for other departments in the museum and the undertaking of special projects. The opportunity to review and discuss this record with a member of the museum staff both enhances the evaluation process and affirms the museum's interest in your work. You might be interested to know that the State of Virginia now has a law requiring all its agencies that use volunteers to keep such records, and further requiring these agencies to accept such records as records of employment, to be considered equally with the records of paid employees if the volunteer wishes to apply for a paying job.

You may never want a salaried position in or outside of a museum. You may, however, want to take a sabbatical, or you may find yourself moving to a new location, and, potentially, a new museum. When you return to your volunteer position, or apply for a new one, you will have more to offer than the newcomer, and you should be able to confirm this. As a mark of appreciation for your efforts, the museum can do nothing more substantial, and should do nothing less, than to confirm them through evaluation.

This article appeared in Roundtable Reports, *V. 4, No. 3, 1979. Barbara Fertig is now at work on a doctorate in American folklife studies.*

CHANCE OR THE PREPARED MIND?

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Since many school groups that visit museums, zoos, and other informal science learning centers are usually there for only a short time, it is important to maximize the benefits of that learning experience. Many research studies suggest that pre-cuing students (exposing them to carefully designed curricular materials before a learning experience) can be an effective instructional strategy for acquiring new knowledge (Novak, 1976, 1977; Ausubel, 1960; Koran and Baker, 1979; Koran and Koran, 1973; Kuhn and Novak, 1970; Barnes and Clawson, 1975; Pizzini and Gross, 1978). Three recent studies by University of Minnesota staff and students on pre-cuing, involved a museum visit, a zoo field trip, and a field trip to an arboretum. This paper reviews these studies and offers recommendations for the development of pre-cuing materials.

Gennaro (1981) attempted to determine the effectiveness of pre-cuing students who were being taken to the Omni-theatre of the Science Museum of Minnesota. The Omni-theatre has been visited by hundreds of school groups for showings of "Genesis," one of its movie-in-the-round experiences that treats concepts related to plate tectonics and the "Big Bang" theory. The study focused on whether pre-cuing increased student learning associated with these concepts.

One hundred and four eighth grade earth science students enrolled in each of five classes taught by one teacher at a suburban Twin Cities school were randomly assigned to two treatments, making a total of ten groups, five experimental and five control. All students were then given a pre-test which consisted of fifty multiple choice items on subject matter associated with the movie.

During each period, the control groups were taught a placebo unit (Geology of the National Parks) lasting four days by the regular teacher. During this time, the experimental groups, using activities intended to teach concepts associated with plate tectonics and the "Big Bang" theory, were taught by a graduate student in science education who had viewed the "Genesis" film on ten occasions and studied the film's accompanying script. At the end of the four-day treatment, all students of both groups traveled to the museum to view "Genesis." The next day, all were given a post-test to determine the amount of learning that took place.

As expected, the students in the experimental group did significantly better than the students in the control group on the post-test. Although items in the test required some recall of factual information as well as comprehension of concepts associated with plate tectonics and the "Big Bang" theory, it is important to note that the test also included more abstract items requiring higher levels of thinking to answer correctly. This component reflects a positive effect of pre-cuing—if students have a better grasp of the information, they are able to use (think about) it more effectively.

A study was conducted by Stoneberg (1981) to determine the effects of four instructional treatments on the cognitive achievement and attitudes of 1671 students in 78 classes of sixth grade students anticipating visiting the Minnesota Zoological Garden (MZG). Classes in each of 52 Minnesota schools were randomly assigned to four treatments which consisted of participation in 1) seven pre-visit learning activities conducted in the classroom prior to their visit to MZG, an on-site guided tour at the zoo, and seven post-visit activities completed back in the classroom; 2) all pre-visit and post-visit activities without participation in the on-site visit; 3) an on-site guided tour only; and 4) none of the zoo activities previously described (the control).

Five experimenter-designed tests and questionnaires were administered to students: a cognitive pre-test, a cognitive post-test, an attitude pre-test, an attitude post-test, and a zoo evaluation. Teachers completed the same evaluation of the zoo experience as their students and a second questionnaire which evaluated the instructional materials used in the study.

The cognitive pre-test and post-test each consisted of twenty multiple choice items. Using t-tests, analyses of variance, and two post-hoc procedures (Student-Newman-Kuels and Scheffe), it was found that all of the treatments except the control were effective in producing cognitive gains among sixth graders. Moreover, schools receiving treatment #1 or treatment #2, in which students were exposed to pre-cuing and post-visit materials, significantly outperformed those receiving treatment #3 or treatment #4 in which there were none. There was no significant difference between the performance of students in schools receiving treatment #1 and treatment #2. Students who received treatment #3 significantly outperformed students in the control group. Thus treatments #1, #2, and #3 were each superior to treatment #4 and treatments #1 and #2 were each superior to treatments #3 and #4. On the basis of this study, one may conclude that exposure alone to the displays at a zoo is not sufficient to obtain substantial cognitive gains in student learning. Participation in additional activities is essential if significant cognitive achievement is to result from field trip experiences.

Significant differences in environmental attitudes were not discovered within any treatment group between pre-testing and post-testing nor among the four treatment groups following post-testing. However, student evaluations of the on-site visit were more favorable among those who had participated in some learning activities than among those who had participated in none. Of the four treatments, treatment #4, the control, generated the fewest positive responses to twenty of twenty-nine objective items on the zoo evaluation. The absence of in-class activities seemed to promote student views of the on-site visit which were decidedly less positive than those expressed by students assigned to other treatments. In addition, teacher evaluations of the zoo visit and the instructional materials were more favorable among those whose students had participated in treatments other than among the control group. It appears that teachers' approval of instructional materials and their opinions of the field trip experience were also influenced by the amount of preparation and post-visit activities to which their classes were exposed. It would be useful to find out what effect the post-visit activities used by students in this study had in the differences found.

A study was conducted by Tanck (1982) to determine the effect of pre-visit preparation for students participating in a greenhouse field trip program, "Plants and Their Habitats," at the Minnesota Landscape Arboretum, Chanhassen, Minnesota. Twenty-four classes of 516 second and third grade students in equal numbers of classes at each grade level were randomly assigned to each of two treatments. Classes in the experimental group used curricular materials consiting of five pre-visit activities, a set of predictions, a checklist, a ten-minute filmstrip, a discussion question, and a set of plant parts to handle and observe. Teachers reported spending 45 to 120 minutes total time using these materials in their classroom prior to the field trip. Teachers in the control group did not use any curricular materials related to plant study with their students.

Due to the potential pre-cuing effect of a pre-test on students, the investigator elected to rely on random assignment to treatment alone. A twenty-item multiple choice test based on the field trip experience was orally administered by the investigator on the next school day following the field trip.

. . . In comparing the means of treatment groups, it was found that students undergoing the experimental treatment scored significantly higher than students in the control group. Observers reported approximately twice as many incidents of use of instructional vocabulary by students in the experimental group during the discussion session at the arboretum than by students in the control group. Responses given to a statement requiring student completion ("Learning about a field trip before I go is ____________________") were categorized as positive, neutral, or negative. Children in the experimental group gave many more positive responses (*e.g.*, fun, neat, exciting) than children in the control group and children in the control group gave many more negative responses (*e.g.*, no fun, boring) than children in the experimental group. Additional additudinal data is presently being analyzed.

If some informal learning center educators are concerned about the adverse effects of highly structured learning activities on the recreational and entertainment aspects of field trip experiences (Laetsch, 1979), these kinds of activities need to be carefully developed. Pre- and post-visit curricular materials are probably best developed by personnel from informal science centers working together with the teachers who will use them. College credit can sometimes be arranged as an incentive for the latter. Instructors from the University of Minnesota and staff from the Minnesota Zoological Gardens have worked successfully with elementary and secondary teachers on the design of curricular materials for use by teachers planning field trips to the zoo (Gennaro, Humphreys, *et al.*, 1980).

Pre-cuing is important for significant learning during a field trip experience. It may be that Louis Pasteur's statement, ". . . chance favors only the mind that is prepared," applies, and the nature of that preparation should concern all educators in all settings.

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THE ROLES OF ATTENTION AND CURIOSITY IN MUSEUM LEARNING

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Museum educators have long recognized that attention is a critical factor in visitor learning from museum exhibits (Wittlin, 1968; Shettel, 1973). Indeed, researchers have pointed out that in order for an exhibit to be educationally effective it must attract viewer attention, maintain that attention, and provide useful information. Some of the most significant research done in museums in recent years has specifically dealt with techniques for directing and controlling attention (Screven, 1974, 1975). In the latter studies, instructional systems, design procedures and adjunct media were used to test the attention focusing effects of pretests, behavioral objectives, "punchboards," audio cassettes, and inserted questions. Each of the adjuncts was effective to a greater or lesser extent in shaping learner search and attending behaviors. Most of these studies were done with "static" or standard case exhibits (Koran and Munyer, 1981).

Concurrently, the pioneering work of Oppenheimer (1970, 1972, 1974) at the Exploratorium in San Francisco on learning from manipulative or hands-on exhibits (Educational Facilities Laboratory, 1975) provided additional information to suggest the dual or interactive roles of attention and curiosity on learning from these types of exhibits. Later field observations and experimental studies in museums or simulation setting (Linn, Chen, and Thier, 1977; Arth and Clareman, 1979; Rice and Linn, 1978; Danilov, 1979; Eason and Hoth, 1978) that compared subjects exposed to objects which could be approached, perceived with all of their senses, and manipulated with subjects who could only *view* similar exhibits tended to support Oppenheimer's original arguments that participatory exhibits attract attention, stimulate interest, curiosity and participation. Some of these studies reported enhanced cognitive outcomes. The range of exhibits observed by these researchers included specimens which could be handled, instructional machines and working devices presenting physical phenomena and biological models.

Studies utilizing experimental, quasi-experimental, and naturalistic methods and focusing on museum and field trip learning in schools have begun to appear in the literature (Falk, Martin, and Balling, 1978; Sneider, Eason, and Friedman, 1979; Linn, 1980; Wright, 1980; Gennaro, 1981; Martin, Falk, and Balling, 1981) and at recent conferences in science education (Koran, *et al.*, 1982b; Koran, *et al.*, 1982c; Koran, *et al.*, 1982d). The studies by Falk, *et al.*, and Sneider, *et al.*, were designed to explore the effects of the "novel field trip" on middle-school-age students' conceptual learning. Since natural history museums and science centers are "novel environments," their results are relevant. They found that when the outdoor environment is novel, less conceptual material is learned than when the setting is familiar. Subsequent studies by these authors confirmed the original findings. It appears that novel environments stimulate students to direct their attention away from structured learning activities toward other components of the environment. Once the environment becomes "familiar," students are better able to focus on the conceptual tasks. This line of inquiry has major implications for how we may control attention in informal settings, and what we can expect as outcomes of informal experiences. If conceptual learning is the desired outcome of a museum visit, a reduction in novelty through advance instruction or pre-visits should help.

Curiosity is frequently defined as a verbal or nonverbal response to a novel, complex, or incongruous stimulus. It is exhibited when an individual *scans* the environment for novelty, *approaches* a new object or event either physically or psychologically, *interacts* with that object or event, and then persists in this behavior (Maw and Maw, 1964). Another common definition of curiosity (Berlyne, 1954, 1966) is that it functions as a drive produced by novel or incongruous stimuli that can be reduced only by investigating, either physically or mentally, the conditions that generated the uncertainty. In museums, the novel or complex stimulus is the object or event. Curiosity is the response to this stimulus which in turn functions to encourage visitors to use their senses to attend to the stimulus and learn about it.

In an article reviewing research on the role of attention in children's learning of science concepts (Koran and Lehman, 1981), it was emphasized that children's attention had to focus on the *relevant* characteristics of the objects or events used in the teaching. They reported that verbal directions, arrows, teacher pointing, and questions all functioned to direct children's attention. Depending on the child's age, color was found to aid in directing attention for younger children, while shapes tended to be more compelling for older children. Both color and shape apparently stimulate curiosity and are major components incorporated to attract attention. Indeed, these same two factors are freely used in museums to achieve similar outcomes.

If curiosity is a *response* to the novel, complex, or incongruous, it can also be considered the *stimulus* which activates attention and subsequent coding of information. In both "static" case exhibits and "dynamic" manipulatable ones (Koran and Munyer, 1981) the objects and events stimulate curiosity which in turn becomes a driving force for expanded perception and attention. Since exhibits are often designed to present the novel or complex, designers need to focus their efforts on means that direct attention.

Another factor described as critical in the Koran and Lehman (1981) review was the amount of time a learner spent observing and manipulating objects and events that contribute to defining concepts. A critical problem for museums is the tremendous number of stimuli, many quite novel, competing for attention. Nehamov (1971) and Danilov (1979) both emphasize that in multidimensional environments visitors have difficulty focusing their attention and remaining in the area of the stimulus long enough for information processing to occur. Both argued for attention directing devices or cues which would help visitors orient themselves to the *relevant* attributes of an exhibit. Screven's (1974, 1975) work and that of the others here reviewed support this observation. The current trend in museums toward increasing complexity of exhibits (from static to dynamic) makes adjunct attention directing devices even more essential for learning and remembering.

In the Linn (1980) study of sixth graders in a "free-choice" environment similar to that which occurs in museum or field trip settings, the students designed controlled experiments and critiqued them. Linn found that instruction combined with exposure to materials was more effective than exposure to the materials alone for designing controlled experiments and manipulating variables. The author speculated that this condition is only effective after students have some familiarity with the goals of instruction. This is consistent with the findings of earlier research indicating that attention must be focused if learning is to occur. It also strongly supports the use of concurrent instruction, or pre-instructional orientation, to reduce the interference of novel stimuli with attention focusing. In addition, one could argue that manipulative exhibits in museums should probably be preceded by, or supply concurrent, orienting information if optimal cognitive results are to occur.

The Wright (1980) study examined the effects on sixth grade students of hands-on and non-hands-on review experiences for comprehension and application of knowledge and concepts about the human body. The author found that having a hands-on review session at a museum provided more concrete ways to assimilate and apply complex concepts concerning the human body. Since the subjects were "reviewing" science content, similar to that which they encountered in the museum with the exhibits and the museum instructors, one could infer that their previous learning experience functioned to provide a familiarity with the museum environment and consequently heightened their attention focusing. This is consistent with Linn's observations and the earlier Screven studies.

Gennaro's study (1981) is similar to those previously described in that he evaluated the effects of pre-visit instructional materials on learning from a museum visit. Prior to their visit, experimental subjects (eighth graders) received advanced instruction on what they would be seeing; control subjects did not receive this orientation. He found that the pre-visit instructional materials were useful for students of all abilities in the treatment group and that the treatment group exceeded the control on a content measure. Again, this finding is consistent with the other studies and also with our general knowledge of how to influence attention to facilitate learning (Gagne, 1973; Bransford, 1979).

In the previous research, attention, perception and curiosity seemed to be so closely related that the study of attention and perception led to the investigation of curiosity in informal settings by Koran and Longino (1981).

It has been noted that the average visitor spends less than thirty seconds viewing an exhibit. This appears to be a marginal amount of time if one considers that the potential number of perceptive modes increase significantly as one shifts from static to dynamic exhibits and that if learning and remembering are to occur encoding must take place. In light of the information load in most exhibits, thirty seconds of attention is barely time for activation of short-term memory and transfer of small bits of information to long-term memory. These studies and observations have led the University of Florida/Florida State Museum research team to focus its efforts on attention and ways to influence its direction and duration. Models similar to the one in the figure are guiding are exploration of the relationship between attention and curiosity (adapted from Gagne, 1970, 1973; Keele, 1973; Bransford, 1979).

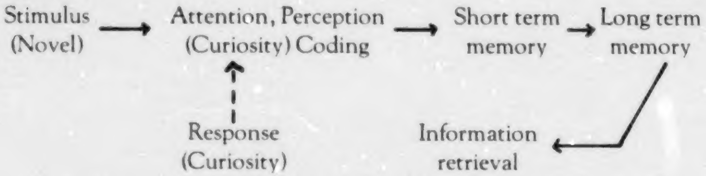

Figure 1

In the figure, the novel stimulus triggers a sequence of events which influences perception and curiosity and results in attention being focused on a particular exhibit or its components. Curiosity continues to interact with attention and perception as encoding of information occurs. After an initial observation, the learner registers information in short-term memory. Attentional research such as Screven's (1974, 1975) efforts and those reviewed by Wilson and Koran (1977) seek to study factors such as pre-tests, questions, and other adjuncts which influence attention and subsequent coding and storage. Some of the content of an exhibit is ultimately stored in long-term memory. If existing knowledge is there to provide linkages, later retrieval cues can influence retrieval and a response. Novel, complex, or incongruous stimuli in a museum setting are processed in a way similar to this and are aided by the curiosity response. This response, among others, can act as a stimulus subsequently to influence attention, expand perception, and enhance encoding.

Our preliminary research and observations at the Florida State Museum, University of Florida, focusing on attention and curiosity, can be summarized as follows:

- Walk-through exhibits such as the Florida Cave require attention directing pre-information as well as post-information retrieval cues so that visitors will attend to relevant objects and events initially and review and recall what they have seen after exiting the Florida Cave (Koran, *et al.*, 1982b);

- Few visitors stop at headphone stations and listen to commentary when in walk-through exhibits, but the use of docents or experimenters modeling listening behavior and verbalizing about what is heard on the headphones significantly increases visitor attention to and use of headphones (Koran, *et al.*, 1982c);
- Age and sex differences were observed in museum settings when visitors were confronted with static and dynamic exhibits with both curiosity and attentional implications:

—adult males seem to peruse objects quickly and cover a lot of territory, while females focus attention on one object and linger longer with it;
—adults of both sexes hesitate to manipulate objects while children freely touch and change the location of objects;
—adults move more rapidly while children tend to linger at exhibits, particularly those they can touch;
—a high percentage of adults admonish children with them not to touch even when exhibits are clearly designed for touching and signs invite hands-on participation;
—when adults can touch an object they spend more time with it than if they can only view the same object;
—adults and children will model each others' manipulative behaviors (Koran, *et al.*, 1982d).

CONCLUSION

The research reviewed here points to the feasibility of studying attention and learning using both experimental and naturalistic methods and the critical role of attention directing and focusing devices and pre-instruction in visitor learning in museum settings. It also highlights the interaction of curiosity with attention and the function both play in information processing.

Our orientation as a research team has focused on attention and curiosity (Koran and Longino, 1982a; Koran and Longino, 1981; Koran and Lehman, 1981) because we feel that these two factors are closely related and critical to learning in all types of exhibit settings. As scientists and science educators we are concerned with how museum learning research can shed light on the analysis of learning in classroom, laboratory, and field trip settings. As educational psychologists we are interested in how established lines of cognitive research (Wittrock, 1979) such as modeling (Koran, 1972), aptitude treatment interaction (Koran and

Koran, 1979), and mathemagenic research (Wilson and Koran, 1976) can play a role in increasing our understanding of how museums influence young and old alike in the cognitive, affective, and psychomotor domains.

Our work is only beginning. There are studies in progress on the effects of utilizing sound within exhibits to attract and hold attention. Other studies are designed to explore the effects of modeling on perception, curiosity, and attention. Continuing observation and research should have an impact on docent behavior and training (possibly suggesting changing roles) as well as exhibit design, and also lead to the exploration of different types of experiences for visitors with different characteristics, such as high or low visual ability, high or low verbal or memory skills, high or low interest, and differences in age, sex, socioeconomic status, or ethnic origin. We feel that the potential opportunities for both experimental and naturalistic research in these areas is unlimited.

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Harry S. Truman Presidential Library and Museum, Independence, MO. "Presidential Documents Link Students and History," Greg Stephens, Janet Nease and Kathleen Vest, V. 7, No. 2.

Turkey Run Farm, McLean, VA. "New Education Programs in Washington Area Museums," Marcy Wasilewski, Fa, 76.

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The Victoria and Albert Museum, London, England. " 'Body Box': Experimental Exhibition by the Education Department of The Victoria and Albert Museum, London," Barbara Fertig, Wi/Ja, 76.

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